

AN APPRAISAL REPORT OF
LIGHT INDUSTRIAL BUILDING
5 HORNE DRIVE
FOLCROFT WEST INDUSTRIAL PARK
FOLCROFT BOROUGH, DELAWARE COUNTY
FOLCROFT, PENNSYLVANIA 19032
TAX FOLIO NO. 20-00-01135-02
TAX MAP NO. 20-006-072-000

AT THE REQUEST OF
THE JOHNS HOPKINS UNIVERSITY
CAREY BUSINESS SCHOOL
EDWARD ST. JOHN DEPARTMENT OF REAL ESTATE
10 NORTH CHARLES STREET
BALTIMORE, MARYLAND 21201

PREPARED BY
JOHN J. COYLE 4TH
825 NORTH VAN BUREN STREET
WILMINGTON, DELAWARE 19806

EFFECTIVE DATE OF REPORT – MAY 1, 2009

EFFECTIVE DATE OF VALUE – JUNE 1, 2008

JOHN J. COYLE 4TH

825 North Van Buren Street
Wilmington, Delaware 19806

May 1, 2009

The Johns Hopkins University
Carey Business School
Edward St. John Department of Real Estate
10 North Charles Street
Baltimore, MD 21201

RE: DEMONSTRATION APPRAISAL REPORT
LAND AND IMPROVEMENTS COMPRISING
THE ONE STORY AND PART TWO STORY
LIGHT INDUSTRIAL FACILITY LOCATED AT
5 HORNE DRIVE
FOLCROFT WEST INDUSTRIAL PARK
FOLCROFT BOROUGH, DELAWARE COUNTY
FOLCROFT, PENNSYLVANIA 19032
TAX FOLIO NO. 20-00-01135-02
TAX MAP NO. 20-06-072-000

Ladies and Gentlemen:

In accordance with your request, I completed an inspection and analysis to appraise the captioned property. The attached report contains the data and reasoning necessary to reach my opinion of value.

The purpose of the report is to estimate the market value of the subject's fee simple interest in its "as is" condition. Although the subject is occupied by a tenant that utilizes the premises for the manufacture of equipment for the aerospace industry, I appraised the fee simple interest in the subject property as of June 1, 2008.

The intended use of the report is to satisfy the practicum requirement of The Edward St. John Department of Real Estate. The intended users of the report include The Edward St. John Department of Real Estate and its faculty, staff, and administrators.

This is a self-contained appraisal report that results from the analysis described in the Scope of Work section. In my opinion, the analysis is sufficient to provide credible results.

The subject property consists of a 36,940 square foot one story and part two story light industrial building situated on 1.58 acres of land measured to the center line of Horne Drive (1.41 acres net of the area within Horne Drive).

Based on my analysis, I estimate the market value of the subject fee simple interest in its "as is" condition as of June 1, 2008 to be:

- TWO MILLION DOLLARS -

(\$2,000,000)

The value reported is qualified by the definitions, limiting conditions, and certifications set forth in the attached report.

Cordially,

A handwritten signature in cursive script, appearing to read "John J. Coyle". The signature is fluid and stylized, with the first and last names being more prominent than the middle initials.

John J. Coyle 4th
PA Certified General Real Estate Appraiser # GA003567

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Figure 1 - Looking North at the Subject Improvements



Figure 2 - Looking East at the Subject Improvements



Figure 3 - Looking South at the Subject Improvements



Figure 4 - Looking West at the Subject Improvements



SUMMARY OF FACTS AND CONCLUSIONS

<u>Property Type</u>	One story and part two story light industrial building
<u>Address</u>	5 Horne Drive Folcroft West Industrial Park Folcroft Borough, Delaware County Folcroft, PA 19032
<u>Land Area</u>	1.58 gross acres measured from the center line of Horne Drive, 1.41 net acres excluding the area in the bed of Horne Drive
<u>Building Data</u>	36,940 square feet erected in 1969, expanded in 1974, 1980, 1985, and 1988, and renovated in 2006 and 2007
<u>Owner</u>	Wilbuc Associates, LLC and Charles E. Frank, as tenants in common
<u>Occupant</u>	NP Precision Incorporated
<u>Assessment</u>	\$960,625
<u>Zoning</u>	LIB Light Industrial/Business Park District
<u>Highest and Best Use – If Vacant</u>	Development of a freestanding single level industrial building containing 20,000 square feet to 25,000 square feet of masonry construction in accordance with the underlying zoning and other land use controls
<u>Highest and Best Use – As Improved</u>	Single occupant light industrial utilization in accordance with the underlying zoning and other land use controls
<u>Estimate of Land Value</u>	\$ 235,000
<u>Indicated Value by the Sales Comparison Approach</u>	\$2,000,000
<u>Indicated Value by the Income Approach</u>	\$1,990,000
<u>Indicated Value by the Cost Approach</u>	\$2,050,000
<u>Final Opinion of Market Value</u>	\$2,000,000

USPAP Standards Rule 1-2 sets forth the elements required to correctly identify the problem to be solved. An appraiser must:

- identify the client and other intended users;
- identify the intended use of the appraiser's opinions and conclusions;
- identify the type and definition of value;
- identify the effective date of the appraiser's opinions and conclusions;
- identify the characteristics of the property that area relevant to the type and definition of value and intended use of the appraisal;
- identify any extraordinary assumptions necessary in the assignment;
- identify any hypothetical conditions necessary in the assignment; and
- determine the scope of work necessary to produce credible assignment results.¹

The Purpose of the Appraisal

The purpose of this appraisal is to estimate the market value of the subject in its "as is" condition.

The Client and Other Intended Users

The intended users of this appraisal report are the faculty, staff and administrators of The Johns Hopkins University Carey Business School Edward St. John Department of Real Estate.

The Intended Use of This Report

I intend The Johns Hopkins University Carey Business School Edward St. John Department of Real Estate to use this report to satisfy the author's student practicum requirement, and for no other purpose.

Definition of Value

The definition of value for this report is market value. Market value is "the most probable price, as of a specified date, in cash, or in terms equivalent to cash, or in other precisely revealed terms, for which the specified property rights should sell after reasonable exposure in a competitive market under all conditions requisite to a fair sale, with the buyer and seller each

¹ USPAP, Standards Rule 1-2.

acting prudently, knowledgeably, and for self-interest, and assuming that neither is under undue duress.”²

The Comment to USPAP Standards Rules 1-2(c) states “when developing an opinion of market value, the appraiser must also develop an opinion of reasonable exposure time linked to the value opinion.”³ Exposure time is “the estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal”⁴ “It is noted that the concept of reasonable exposure encompasses not only adequate, sufficient and reasonable time but also adequate, sufficient and reasonable effort.”⁵ Thus, the appraiser must base the estimate of market value on a reasonable amount of time to properly advertise the subject to potential buyers prior to the effective date of appraisal. To develop an opinion of the reasonable exposure time, an appraiser may rely upon statistical information about days on market, information gathered through sales verifications, and interviews of market participants.⁶

A concept related to reasonable exposure time is marketing time. Marketing time is “an estimate of the amount of time it might take to sell an interest in real property at its estimated market value during the period immediately after the effective date of the appraisal.”⁷ “The reasonable marketing time is a function of price, time, use, and anticipated market condition, such as changes in the cost and availability of funds”⁸ To develop an opinion of the marketing time, an appraiser may rely upon statistical information about days on market, information gathered through sales verifications, interviews of market participants, and anticipated changes in market conditions.⁹

Based on information from CoStar, I have identified the number of days on market for 11 sales of industrial/flex buildings in the subject’s peer group ranging from \$45.00 per square foot to \$65.00 per square foot, a price range that brackets my final opinion of value. The time on market ranged from zero for a sale in which the buyer approached the seller directly when the property was not for sale to 24 months. The mean time on market was 8 months and the median time on market was 7 months. The mode was 8 months. The following table summarizes the results.

² The Appraisal Institute, *The Appraisal of Real Estate*, 13th ed., 23.

³ USPAP Standards Rule 1-2(c), Comments.

⁴ *The Dictionary of Real Estate Appraisal*, 4th ed., s.v. “Exposure Time.”

⁵ The Appraisal Standards Board of The Appraisal Foundation, *Statement on Appraisal Standards No. 6, “Reasonable Exposure Time in Real Property and Personal Property Market Value Opinions.”*

⁶ The Appraisal Standards Board of The Appraisal Foundation, *Statement on Appraisal Standards No. 6, “Reasonable Exposure Time in Real Property and Personal Property Market Value Opinions.”*

⁷ *The Dictionary of Real Estate Appraisal*, 4th ed., s.v. “Marketing Time.”

⁸ The Appraisal Standards Board of The Appraisal Foundation, *Advisory Opinion 7*.

⁹ The Appraisal Standards Board of The Appraisal Foundation, *Advisory Opinion 7*.

TIME ON MARKET ANALYSIS

	<u>Time on Market</u>		<u>Time on Market</u>
Transaction 1	0 Months	Transaction 7	8 Months
Transaction 2	1 Month	Transaction 8	8 Months
Transaction 3	4 Months	Transaction 9	10 Months
Transaction 4	5 Months	Transaction 10	17 Months
Transaction 5	6 Months	Transaction 11	24 Months
Transactions 6	7 Months		

Based upon the information discussed above, the estimate of market value presumes an exposure time of 9 months and a marketing time of 9 months.

Effective Date of Opinions and Conclusions

The effective date of value for this report is June 1, 2008.

Property Rights Appraised

Although the subject is occupied by a tenant, this report appraises the subject's fee simple interest. For purpose of this appraisal, the fee simple interest is "absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat."¹⁰

Extraordinary Assumptions

USPAP defines an extraordinary assumption as "an assumption, directly related to a specific assignment, which, if found to be false, could alter the appraiser's opinions or conclusions."¹¹ The date of valuation for this report is June 1, 2008, but I did not first inspect the subject property until July 15, 2008. Since I did not observe the condition of the subject on the date of valuation, I based my analysis upon an extraordinary assumption that the condition of the subject on July 15, 2008 was the same as the condition of the subject on June 1, 2008.

In my opinion this is a reasonable assumption. There are less than two (2) months between the date of valuation and the date of inspection. Representatives of the occupant indicated that no major improvements or changes occurred during that time period.

Hypothetical Conditions

USPAP defines a hypothetical condition as "that which is contrary to what exists but is supposed for the purpose of analysis."¹² On the June 1, 2008 date of valuation, NP Precision Incorporated occupied the subject pursuant to the terms of a lease more fully described in subsequent sections of this report and reproduced in the addendum. NP Precision paid an annual

¹⁰ *The Dictionary of Real Estate Appraisal*, 4th ed., s.v. "Fee Simple Estate."

¹¹ USPAP, Definitions.

¹² USPAP, Definitions.

rent that is less than my estimate of the market rent. This appraisal estimates the fair market value of the fee simple interest in the subject property and does not take into account the influence of the lease in effect with NP Precision Incorporated. Accordingly, I based my analysis on the hypothetical condition that a tenant occupies the subject according to a lease at market terms and pays market rent.

Subject Characteristics Relevant to the Problem to be Solved

The subject of this report does not include any personal property, trade fixtures or intangibles that are not real property. I analyzed the subject as a whole and did not appraise a fractional interest, physical segment, or partial holding. The following sections of this report describe the locational, physical, legal and economic attributes of the subject real estate that are relevant to the problem to be solved.

The Uniform Standards of Professional Appraisal Practice (USPAP) effective January 1, 2008 govern the scope of work for all appraisal assignments. An appraiser must:

1. identify the problem to be solved;
2. determine and perform the scope of work necessary to develop credible assignment results; and
3. disclose the scope of work in the report.¹³

I prepared this appraisal as a self-contained appraisal report. It is my intention to comply with the reporting requirements contained in Standards Rule 2-2(a). Accordingly, a description of the scope of work used to develop this appraisal follows.

Extent to Which the Property Is Identified

In this appraisal assignment, I gathered relevant information from the owner, the occupant, public records, and through an inspection of the subject. I viewed the interior and exterior of the subject improvements and interviewed representatives of the owner and tenant to gather information about the physical characteristics that are relevant to the valuation problem. I relied upon the deed from West Avenue Beach Properties LP to Wilbuc Associates, LLC and Charles E. Frank, as tenants in common, dated December 15, 2003, the postal address, and assessor's records for a legal description of the subject land. Although I requested access to a recent survey and title report, neither was available to review. I examined the lease between Wilbuc Associates, LLC and Charles E. Frank, as tenants in common, and NP Precision Incorporated, as amended, to identify the economic characteristics of the subject.

Extent to Which the Property Is Inspected

I viewed and photographed the interior and exterior of the subject property on July 15, 2008, and April 1, 2009.

Type and Extent of the Data Researched

This report is based upon my review and analysis of the market conditions affecting real property value, including land values, cost and depreciation estimates, the attributes of competitive properties, and sales data for industrial properties. This process included interviews with market participants, available published data, and the other resources cited in this report. I also reviewed applicable tax data, zoning requirements, flood zone status, demographic trends, land use trends, and employment trends.

I researched data on comparable land and improved sales, income and expense information, and construction costs; confirmed all comparable sales information; and analyzed the information gathered in applying the cost, sales comparison, and income capitalization

¹³ USPAP, Scope of Work Rule.

approaches. Please refer to the subsequent portions of this report that individually address the approaches to value for a further description of the type and extent of the data researched.

Type and Extent of Analysis Applied

I analyzed the gathered data to arrive at an estimate of value of the fee simple interest in the subject property in its “as is” condition by each of the three traditional approaches to value: the sales comparison approach, the cost approach, and the income capitalization approach. To reconcile the approaches to value, I considered the quantity and quality of the data available under each approach, the advantages and/or disadvantages of each approach, and the relevance of each to the subject property and the appraisal problem. Subsequent sections of this report discuss the steps required to complete each approach and the reconciliation process.

IDENTIFICATION OF THE SUBJECT PROPERTY

The subject property, commonly known as 5 Horne Drive, Folcroft, Pennsylvania 19032, is situated on the north side of Horne Drive approximately 310 feet east of the intersection of Horne Drive and School Lane in the western portion of the Folcroft West Industrial Park. The Folcroft West Industrial Park is located in Folcroft Borough, Delaware County. Delaware County identifies the subject as Tax Folio No. 20-00-01135-02 and Tax Map No. 20-006-072-000. The subject improvements consist of a one story and part two story building containing approximately 36,940 square feet of gross building area.

Wilbuc Associates, LLC and Charles E. Frank own the subject as tenants in common. NP Precision Incorporated occupies the subject property under a ten (10) year lease that began on January 1, 2004 and ends December 31, 2013. A copy of the current lease, as amended, is included in the addendum. Pursuant to the lease, NP Precision Incorporated has to option to purchase the subject property for \$1,600,000, or \$43.31 per square foot. NP Precision Incorporated can exercise the purchase option in writing at any time after June 30, 2003. The following table summarizes the annual rent paid by NP Precision Incorporated under the current lease.

<u>ANNUAL RENTAL SUMMARY</u>			
<u>Begin</u>	<u>End</u>	<u>Annual Rent</u>	<u>Annual Rent per SF</u>
January 1, 2004	December 31, 2005	\$175,000.00	\$4.74
January 1, 2006	December 31, 2006	\$192,000.00	\$5.20
January 1, 2007	December 31, 2008	\$210,000.00	\$5.68
January 1, 2009	December 31, 2013	\$229,313.50	\$6.21

The subject's legal description is set forth below.

ALL THAT CERTAIN lot or piece of ground with the buildings and improvements thereon erected, SITUATE in the Borough of Folcroft, County of Delaware, State of Pennsylvania, as shown on a Plan of Property and Topographic Map for Wilbur C. Henderson, prepared by H. Gilroy Damon Associates, Inc., Civil Engineers, Sharon Hill, Pennsylvania, dated December 28, 1967 last revised December 22, 1971 being bounded and described as follows:-

BEGINNING at a point in the center line of a certain 50 feet wide street (unnamed on above plan but known as Horne Drive), said point being located the following three courses and distances from the intersection of said center line of Horne Drive with the title center line of School Lane (60 feet wide): (1) along said center line of Horne Drive North 58 degrees 55 minutes 45 seconds East 180.49 feet to a point of curve; (2) on a 910.35 feet radius curving to the right the arc distance of 119.83 feet to a point of tangent; (3) North 66 degrees 28 minutes 15 seconds East 22.3 feet to said point of beginning; thence leaving Horne Drive North 23 degrees 31 minutes 45 seconds West 233 feet to a point; thence North 66 degrees 28 minutes 15 seconds East 294.84 feet to a point; thence South 23 degrees 48 minutes 7 seconds East 233 feet to a point in the said center line of Horne Drive, said point being the center of a 50 feet radius cul-de-sac; thence along said center line South 66 degrees 28 minutes 15 seconds West 296.02 feet to the first mentioned point and place of beginning.

BEING Lot No. 5 on said Plan, including a 15 feet wide strip of land at the Southwesterly side of the property.

Being Folio #20-00-01135-02

Being inter alia the same premises which Mary Narzikul also known as Mary C. Narzikul by Deed dated March 29, 2001 and recorded April 5, 2001 in Delaware County in Volume 2151 Page 1904 conveyed unto West Avenue Beach Properties, L.P., a Pennsylvania Limited Partnership, in fee.

Figure 5 - Legal Description

HISTORY OF THE PROPERTY

Wilbuc Associates, LLC and Charles E. Frank as tenants in common, acquired the subject on December 15, 2003 from West Avenue Beach Properties LP for a consideration of \$1,325,000, or \$35.87 per square foot. The transaction is recorded at Media Borough, the county seat of Delaware County, in Book 3038, Page 109. The addendum contains a copy of the deed. At the time of acquisition, the subject was improved with the existing one story and part two story light industrial facility.

The subject was erected in stages beginning in 1969 and ending in 1988. The gross building area ranged from 19,301 square feet in 1969 to 36,940 square feet in 1988 through the June 8, 2008 date of valuation. The following table summarizes the construction stages for the subject over time.

<u>CONSTRUCTION OF THE SUBJECT BUILDING IMPROVEMENTS</u>				
<u>Year</u>	<u>Description</u>	<u>1st Floor Area</u>	<u>2nd Floor Area</u>	<u>Cumulative Total</u>
1969	Office and Manufacturing Areas	19,301 SF	0 SF	19,301 SF
1974	Warehouse Addition	2,716 SF	0 SF	22,017 SF
1980	Warehouse and Office Additions	7,748 SF	1,900 SF	31,665 SF
1985	Utility Addition	1,275 SF	0 SF	32,940 SF
1988	Two Story Addition	2,000 SF	2,000 SF	36,940 SF
TOTAL BUILDING AREA		33,040 SF	3,900 SF	36,940 SF

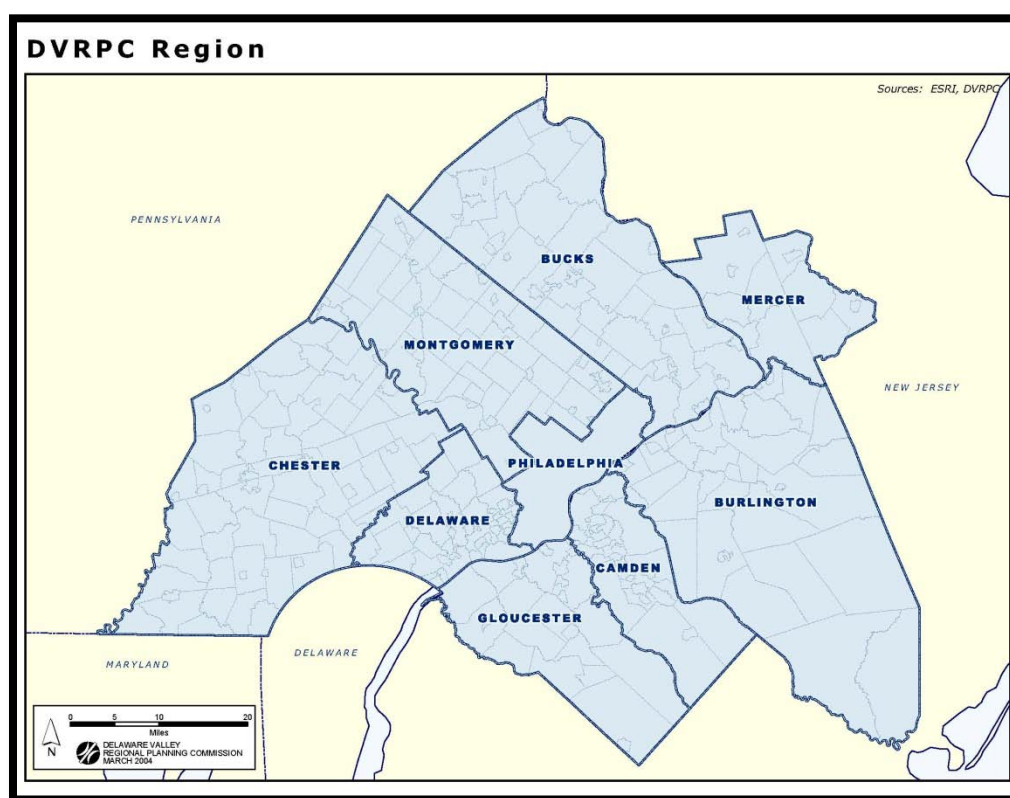
During 2006 and 2007 the occupant, NP Precision Incorporated, invested over \$250,000 to improve the subject property. The following table summarizes the tenant's expenditures.

<u>NP PRECISION BUILDING IMPROVEMENTS – 2006 AND 2007</u>		<u>Cost</u>
Bay 1 added 49 new lights		\$47,752
Finished new back room 1,800 square feet		\$9,500
Built new locker room and bathroom including all lighting and fixtures		\$22,287
Leveled, stripped, patched degreased, 30,000 sq. feet of floors, patched wall, stripped off old grease and paint, repainted with two coats, stripped ceiling of rust then repainted 30,000 sq foot ceiling with two coats of rust preventive primer and epoxy paint		\$114,400
Filled in and leveled five pits approximately 4'x4'x4' deep releveled all areas		\$20,415
Replaced three non working doors		
• between bay 1 and 2		\$16,480
• to outside from bay 2		\$2,050
• to addition from main shop		\$6,000
1 new packaged rooftop HVAC unit		\$9,631
1 7.5 ton gas heat electric roof top unit		\$4,815
TOTAL		\$253,330

Overview

The subject is located in the Folcroft West Industrial Park section of Folcroft Borough, Delaware County, Pennsylvania. The Delaware Valley Regional Planning Commission (DVRPC) serves nine member counties, five southeastern Pennsylvania counties (Bucks, Chester, Delaware, Montgomery, and Philadelphia) and four southern New Jersey counties (Burlington, Camden, Gloucester, and Mercer).

Montgomery County and Chester County shape Delaware County's northern boundary. The City of Philadelphia is located to the east. New Castle County, Delaware and the Delaware River, across which is Gloucester County, New Jersey, form the southern boundary. Chester County abuts Delaware County to the west.

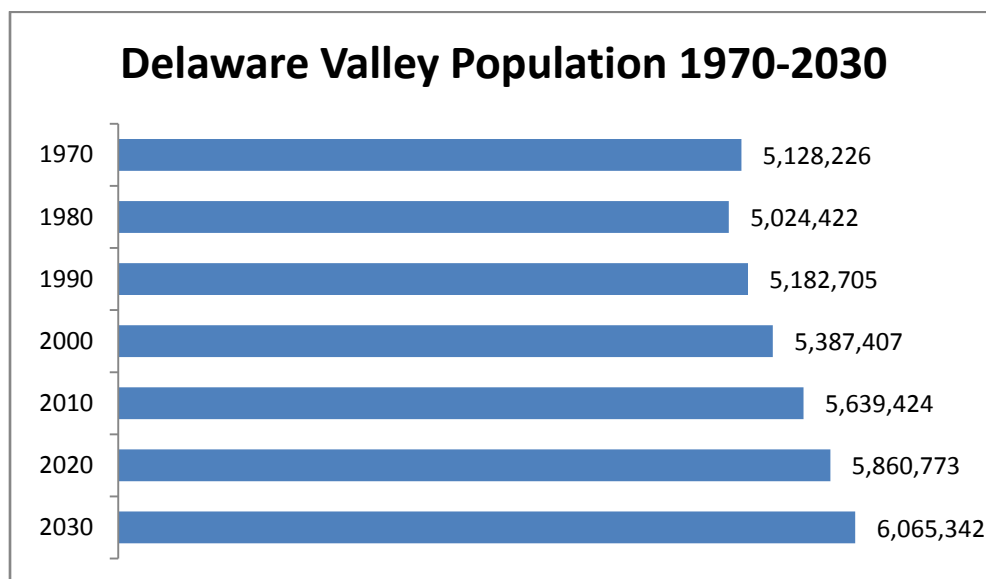


The region contains 3,812.34 square miles. The City of Philadelphia (which is coterminous with Philadelphia County) is the smallest county with 142.47 square miles, or 3.74% of the region's land area. Burlington County, New Jersey, which contains 21.48% of the region's land, is the largest with 818.74 square miles. Delaware County is the second smallest of the DVRPC's nine member counties with 190.63 square miles, or 5.00% of the region.

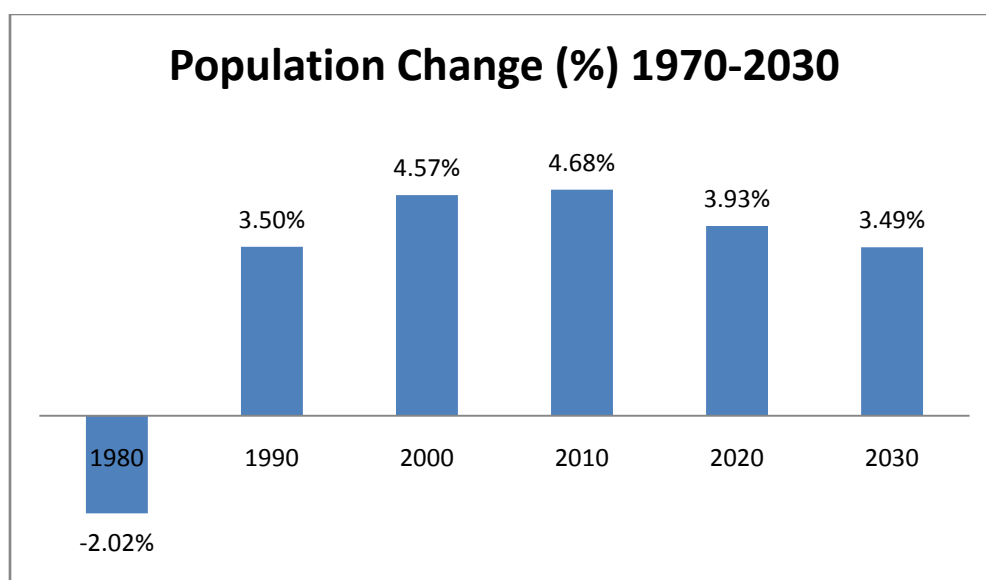
The eastern portion of Delaware County represents the initial suburbs of the City of Philadelphia that grew substantially from the turn of the 20th Century through World War II. Since 1960/1970, the focus of growth and development in Delaware County shifted north and west. Delaware County benefits from access to the region's highway network, freight and passenger railways, an international airport, and deep water ports.

Population

The Nine County Delaware Valley Planning Region. The following table summarizes the United States Census Bureau population statistics for the Delaware Valley from the 1970, 1980, 1990, and 2000 censuses; and the DVRPC's forecasts for 2010, 2020, and 2030.

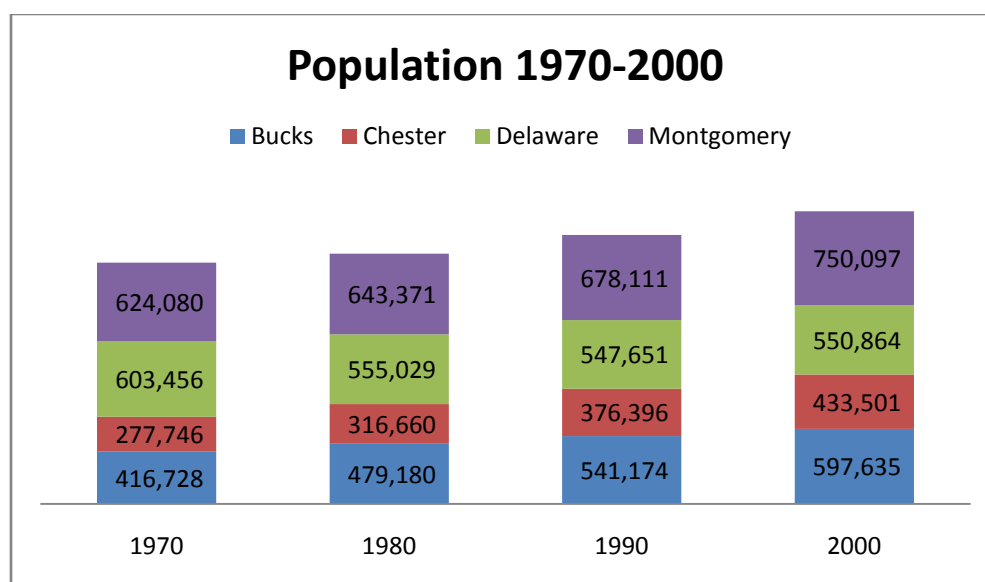


The region grew rapidly from 1930 to 1970, mostly in older and more densely developed areas in Philadelphia and the immediately adjacent suburbs. However, the population of DVRPC's nine counties declined -2.02% (103,804 persons) in the decade between 1970 and 1980. From 1980 to 1990, the population grew by 158,283 persons (3.50%) to reclaim the losses of the prior decade. The most recent census in 2000 indicates that the nine counties as a whole grew by 4.57%, or 204,702 persons. Overall, the region's population grew 6.06% (259,181 persons) between 1970 and 2000.

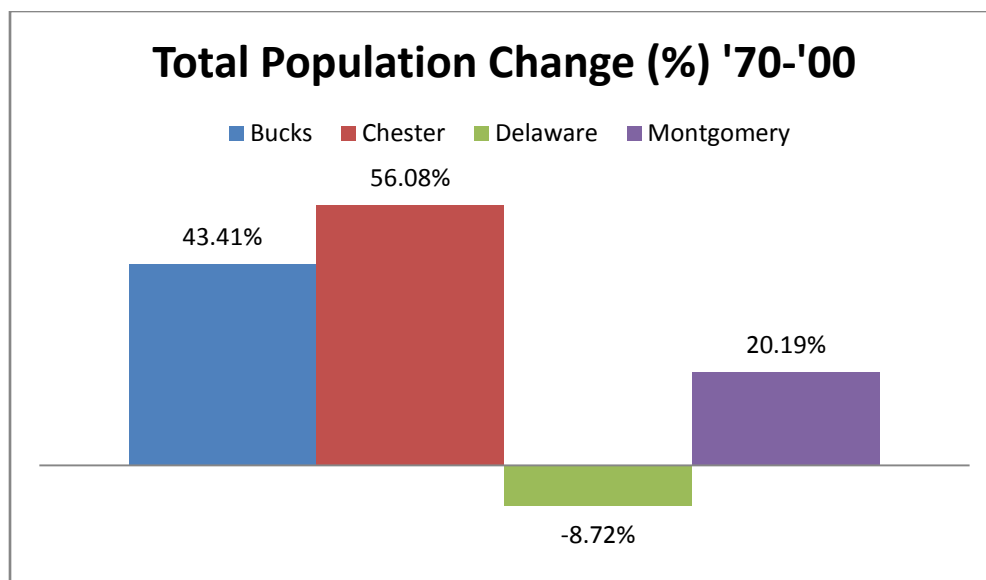


The DVRPC forecasts that the Delaware Valley's population will continue to grow from 2000 to 2030. The 2010 forecast indicates that the region stands to gain 252,017 persons (4.68%) over the 2000 census, approximating the growth of the prior decade. The DVRPC estimates that the region's population will grow at a slower pace with another 221,349 persons (3.93%) added by 2020. The 2030 forecast predicts that the region will gain another 204,569 persons (3.49%). Accordingly, the DVRPC projects that the region's population will increase by 12.42% from 2000 to 2030, more than double the rate from 1970 to 2000.

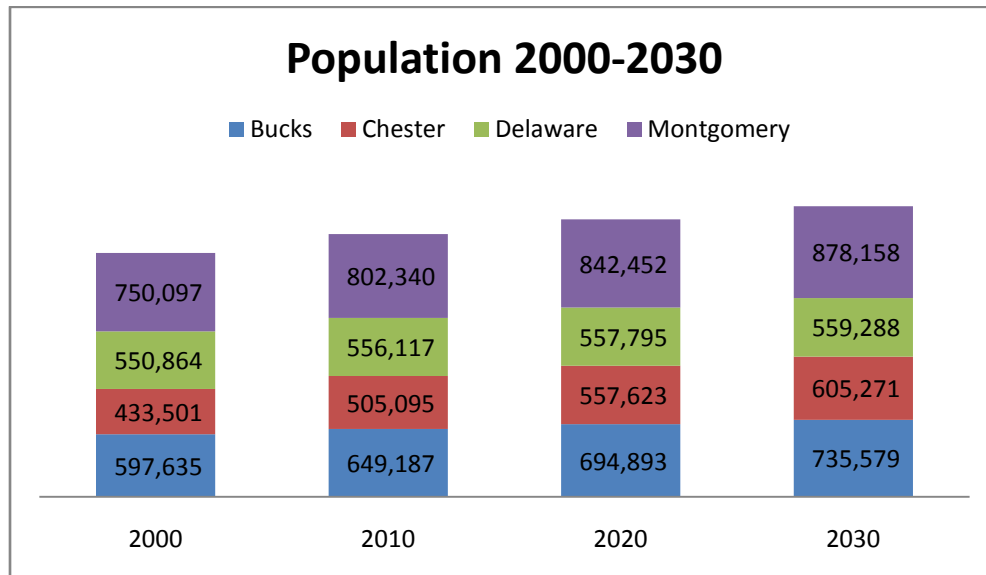
The Pennsylvania Suburbs. The patterns of growth of the four Pennsylvania suburban counties were not uniform between 1970 and 2000. Delaware County was the only Pennsylvania suburban county to lose population. From 1970 to 2000, Bucks, Chester and Montgomery Counties grew consistently. By contrast, Delaware County lost residents from 1970 to 1990, but reversed the trend to reclaim some of the losses by 2000.



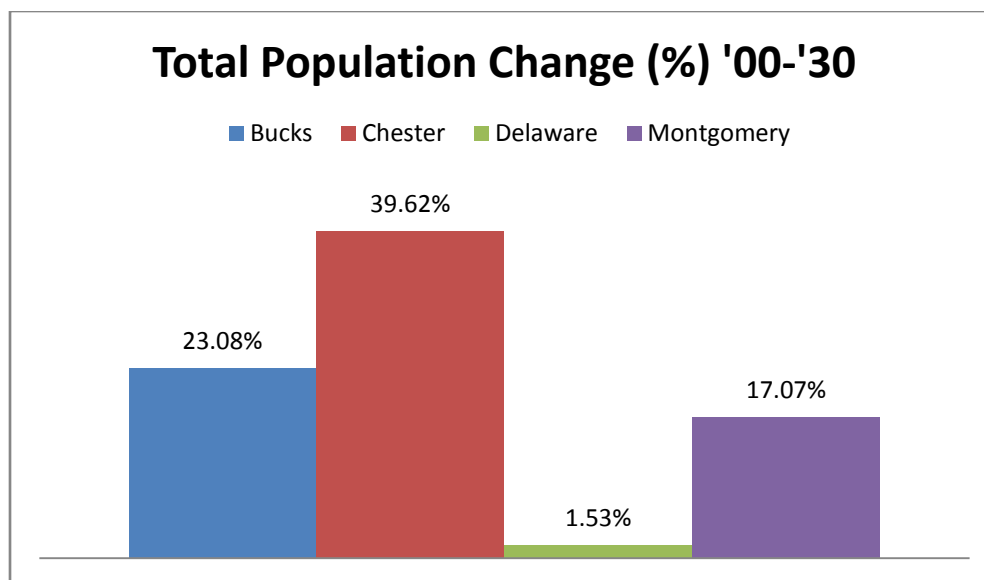
In the 30 years between 1970 and 2000, Delaware County was the only suburban Pennsylvania county that lost population on an aggregate basis with an -8.72% decline (-52,592 persons). Delaware County started 1970 as the second largest Pennsylvania suburban county in the Delaware Valley behind only Montgomery County, but slipped to third behind Bucks County.



Bucks County's population grew 43.41% by adding 180,907 residents, the largest absolute growth of the four suburban Pennsylvania counties. Chester County remained the smallest of the four counties based on population but witnessed the second largest absolute growth (155,755 persons) and the largest percentage growth (56.08%). While Montgomery County had only the third largest percentage growth (20.19%) and absolute growth (126,017 persons), it remained the largest of the four Pennsylvania suburban counties based on population.



DVRPC's population forecasts for 2010, 2020, and 2030 generally project a continuation of the historic trends from 1970 to 2000. Delaware County's population will remain virtually flat while the three remaining suburban counties in Pennsylvania will lead the way in growth.



The DVRPC projects that in the 30 years between 2000 and 2030 Delaware County will add only 8,424 residents (1.53%) and become the smallest of the four suburban Pennsylvania counties based on population. With the addition of 171,770 inhabitants (39.62%) over the same time period, Chester County will again lead in percentage and absolute population growth, and surpass Delaware County as the third most populous of the DVRPC's Pennsylvania suburbs. Bucks County's population will grow 23.08% by adding 137,944 persons, the second largest absolute and percentage growth from 2000 to 2030, to remain number two in suburban population behind Montgomery County. Montgomery County will stay the largest of the four Pennsylvania suburban counties based on population with the third largest percentage growth (17.07%) and absolute growth (128,061 persons).

Land Development Trends

A review of land development patterns reinforces the trends in population change. The following table compares the change in population and the change in developed land for the region between 1990 and 2000.

<u>DEVELOPED LAND VS. POPULATION 1990-2000</u>				
County	Developed Land (Acres)		Population	
	1990	2000	% Change '90-'00	% Change '90-'00
Bucks	122,029	149,343	22.38%	10.43%
Chester	118,285	145,667	23.15%	15.17%
Delaware	75,076	80,889	7.74%	0.59%
Montgomery	149,974	174,350	16.25%	10.62%
Philadelphia	75,993	75,593	-0.53%	-4.29%
PA Total	541,357	625,842	15.61%	3.24%
Burlington	84,805	95,333	12.41%	7.17%
Camden	69,612	74,149	6.52%	1.21%
Gloucester	51,936	63,268	21.82%	10.69%
Mercer	55,195	61,326	11.11%	7.65%
NJ Total	261,549	294,076	13.47%	5.78%
REGION	802,905	919,918	14.57%	7.17%

These statistics indicate the positive growth in the population and new land development is all occurring outside of the City of Philadelphia. The data also indicates that the rate of land usage exceeds the rate of population growth. Accordingly, the increasing population is using land at an increasing rate.

Between 1990 and 2000, the population in Delaware County remained almost unchanged. However, Delaware County's inventory of developed land increased 7.74% over the same period. Of Delaware County's 49 municipalities, the largest gains in developed land area occurred in the western part of the county, as shown above. This is the same part of the county that witnessed the greatest population growth. Thus, the focus of population growth and land development in Delaware County moved west away from the City of Philadelphia.

Employment

The tables on Page 20 illustrate a forecasted shift in employment from manufacturing to service oriented industries in the nine-county region and in Delaware County. In 2005, the service industries accounted for 36.87% of the Delaware Valley's jobs. By contrast, manufacturing provided 10.41% of the jobs. The DVRPC forecasts that the Delaware Valley will increase the number of jobs in 2030 by 11.47% over the 2005 levels driven by a 32.69% growth rate in the services industries. By 2030, the manufacturing sector will only account for 9.14% of the workforce, a decline of more than two points, while services will comprise 43.89% of the region's jobs.

In Delaware County, the DVRPC forecasts that employment will grow 2.16% between 2005 and 2030. Transportation/utilities and services are the only growth sectors for Delaware County. During the 25 years between 2005 and 2030, the DVRPC expects that manufacturing employment will decline 15.95 percent. Employment in Delaware County's services sector, however, will grow 21.05 percent.

<u>PERCENTAGE CHANGE IN TOTAL EMPLOYMENT</u>			
<u>2005-2030</u>			
County	2005 Total Employment	2030 Total Employment	% Change 2005-2030
Bucks	277,903	333,185	19.89%
Chester	253,622	326,992	28.93%
Delaware	237,587	242,708	2.16%
Montgomery	505,950	574,251	13.50%
Philadelphia	728,035	734,039	0.82%
5 PA Counties	2,003,097	2,211,175	10.39%
Burlington	214,642	254,072	18.37%
Camden	222,732	226,124	1.52%
Gloucester	108,235	140,597	29.90%
Mercer	228,508	263,687	15.40%
4 NJ Counties	774,117	884,480	14.26%
Region Total	2,777,214	3,095,655	11.47%

The forecasted change in total employment between 2005 and 2030 highlights the locations of job growth. Delaware County lags well behind the nine-county region and the average of the five Pennsylvania counties. DVRPC projects future employment growth to occur in the suburban counties such as Chester County, PA and Gloucester County, NJ. The projected level of growth in Delaware County's future employment is more akin to the City of Philadelphia and Camden County, NJ, areas that once thrived in the industrial boom that occurred following World War II.

DELAWARE VALLEY EMPLOYENT FORECAST BY SECTOR 2005-2030

	Ag/Mine	Construct	Mfg	Trans/Util	Wholesale	Retail	F.I.R.E.	Services	Gov't	Millitary	Total
2005	30,275	143,075	289,013	114,859	131,225	444,657	229,394	1,023,929	361,962	8,775	2,777,164
2010	29,407	129,186	298,181	117,767	132,950	436,122	213,184	1,118,743	356,511	9,714	2,841,765
2015	28,776	128,899	294,325	118,542	133,312	438,078	214,026	1,183,173	360,507	10,055	2,909,693
2020	28,202	128,740	290,535	118,821	133,633	440,329	215,149	1,243,941	364,510	10,376	2,974,236
2025	27,419	128,550	287,021	119,197	133,931	442,647	216,651	1,302,326	369,387	10,658	3,037,787
2030	26,636	128,123	282,802	119,151	133,863	444,226	217,596	1,358,695	373,670	10,893	3,095,655
% Chg '05-'10	-2.87%	-9.71%	3.17%	2.53%	1.31%	-1.92%	-7.07%	9.26%	-1.51%	10.70%	2.33%
% Chg '10-'15	-2.15%	-0.22%	-1.29%	0.66%	0.27%	0.45%	0.39%	5.76%	1.12%	3.51%	2.39%
% Chg '15-'20	-1.99%	-0.12%	-1.29%	0.24%	0.24%	0.51%	0.52%	5.14%	1.11%	3.19%	2.22%
% Chg '20-'25	-2.78%	-0.15%	-1.21%	0.32%	0.22%	0.53%	0.70%	4.69%	1.34%	2.72%	2.14%
% Chg '25-'30	-2.86%	-0.33%	-1.47%	-0.04%	-0.05%	0.36%	0.44%	4.33%	1.16%	2.20%	1.90%
% Chg '05-'30	-12.02%	-10.45%	-2.15%	3.74%	2.01%	-0.10%	-5.14%	32.69%	3.23%	24.14%	11.47%

DELAWARE COUNTY EMPLOYMENT FORECAST 2005-2030

	Ag/Mine	Construct	Mfg	Trans/Util	Wholesale	Retail	F.I.R.E.	Services	Gov't	Millitary	Total
2005	2,060	15,805	21,049	11,915	10,617	38,354	19,987	92,967	24,679	154	237,587
2010	1,869	13,970	20,913	12,435	10,401	36,766	18,007	99,936	24,265	166	238,728
2015	1,720	13,615	19,879	12,788	10,120	36,080	17,607	103,615	24,220	165	239,809
2020	1,659	13,116	19,047	12,870	10,058	35,835	17,530	106,380	24,177	161	240,833
2025	1,529	12,863	18,337	12,780	9,862	35,435	17,171	109,447	24,217	156	241,797
2030	1,398	12,632	17,691	12,539	9,648	34,967	16,813	112,532	24,334	154	242,708
% Chg '05-'10	-9.27%	-11.61%	-0.65%	4.36%	-2.03%	-4.14%	-9.91%	7.50%	-1.68%	7.79%	0.48%
% Chg '10-'15	-7.97%	-2.54%	-4.94%	2.84%	-2.70%	-1.87%	-2.22%	3.68%	-0.19%	-0.60%	0.45%
% Chg '15-'20	-3.55%	-3.67%	-4.19%	0.64%	-0.61%	-0.68%	-0.44%	2.67%	-0.18%	-2.42%	0.43%
% Chg '20-'25	-7.84%	-1.93%	-3.73%	-0.70%	-1.95%	-1.12%	-2.05%	2.88%	0.17%	-3.11%	0.40%
% Chg '25-'30	-8.57%	-1.80%	-3.52%	-1.89%	-2.17%	-1.32%	-2.08%	2.82%	0.48%	-1.28%	0.38%
% Chg '05-'30	-32.14%	-20.08%	-15.95%	5.24%	-9.13%	-8.83%	-15.88%	21.05%	-1.40%	0.00%	2.16%

<u>UNEMPLOYMENT RATES 2000-2007</u>			
County	2000 Unemployment %	2005 Unemployment %	2007 Unemployment %
Bucks	3.4%	4.1%	3.8%
Chester	3.1%	3.6%	3.1%
<i>Delaware</i>	<i>3.8%</i>	<i>4.6%</i>	<i>4.0%</i>
Montgomery	3.2%	3.9%	3.4%
Philadelphia	5.6%	6.7%	6.0%
Burlington	3.1%	3.9%	3.8%
Camden	3.9%	4.8%	4.8%
Gloucester	3.6%	4.4%	4.3%
Mercer	3.3%	3.9%	3.8%
Pennsylvania	4.2%	5.0%	4.4%
New Jersey	3.7%	4.5%	4.3%
United States	4.0%	5.1%	4.6%

Delaware County has a favorable unemployment rate according to the United States Department of Labor Statistics. The County unemployment rate is consistently below that of the City of Philadelphia, the Commonwealth of Pennsylvania, the State of New Jersey, and the nation as a whole.

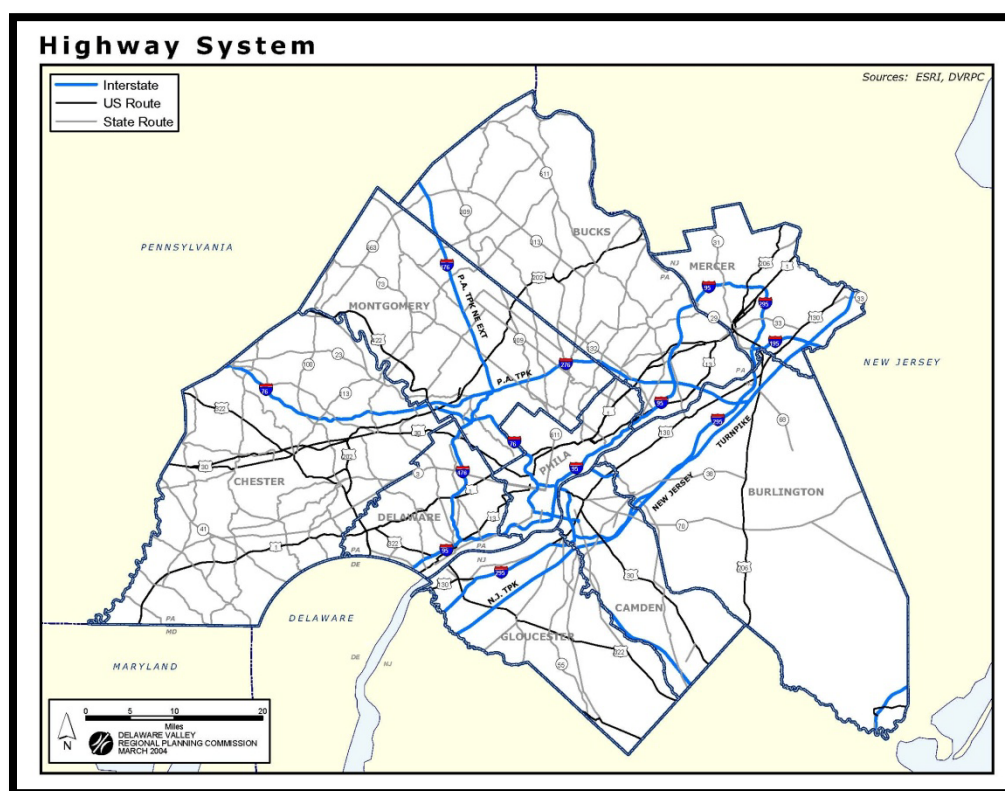
<u>PERCENT CHANGE IN PER CAPITA PERSONAL INCOME 2000-2007</u>			
County	2000 Per Capita Personal Income	2007 Per Capita Personal Income	% Change 2000-2007
Bucks	\$38,241	\$50,070	30.93%
Chester	\$46,457	\$58,130	25.13%
<i>Delaware</i>	<i>\$36,824</i>	<i>\$48,060</i>	<i>30.51%</i>
Montgomery	\$45,991	\$62,086	35.00%
Philadelphia	\$24,569	\$34,764	41.50%
Burlington	\$35,060	\$44,077	25.72%
Camden	\$29,489	\$39,266	33.15%
Gloucester	\$28,027	\$37,331	33.20%
Mercer	\$39,461	\$52,255	32.42%
Pennsylvania	\$29,698	\$38,793	30.63%
New Jersey	\$38,377	\$49,511	29.01%
United States	\$29,847	\$38,615	29.38%

The U.S. Department of Commerce Bureau of Economic Analysis maintains data on per capita personal income on a county by county basis. Between 2000 and 2007, Delaware County's per capita personal income grew 30.51%. Delaware County's gain in per capita personal income generally tracks that of the Commonwealth of Pennsylvania and is slightly higher than the State of New Jersey and the nation as a whole.

Transportation

The Delaware Valley benefits from a transportation network that includes an extensive highway system, an international airport, deepwater ports, and public transportation.

Highway System. Interstate 95, the Pennsylvania Turnpike, and the New Jersey Turnpike are the three primary interstate highways that connect the Delaware Valley to major population centers in the eastern United States. Interstate 95 links the entire eastern seaboard from Maine to Florida. The Pennsylvania Turnpike crosses the Commonwealth of Pennsylvania from the New Jersey Turnpike in the east to Ohio in the west. The Northeast Extension of the Pennsylvania Turnpike provides access to points north from Plymouth Township, Montgomery County through Lehigh County to the Pocono Mountains. The New Jersey Turnpike is a direct link between the Delaware Valley and New York.



The Schuylkill Expressway (Interstate 76) is a major east/west artery serving the area. It connects Center City Philadelphia and Southern New Jersey to the east with King of Prussia/Valley Forge, the Pennsylvania Turnpike, and Chester County to the west. The Blue Route (Interstate 476) is a major north/south artery that traverses Delaware County and Montgomery County linking Interstate 95 and the Pennsylvania Turnpike. PA Route 291 (the Industrial Highway) also extends from the City of Philadelphia south to Marcus Hook, PA serving the industrial communities of Essington, Eddystone, Chester, and Trainer. US Route 202 is a north/south route that connects King of Prussia with Chester County, Delaware County, and the State of Delaware to the south. The Route 202 corridor experienced a rapid expansion of residential, commercial, and industrial development

<u>ANNUAL VEHICLE MILES TRAVELED 2003-2007</u>			
County	2003 Vehicle Miles Traveled	2007 Vehicle Miles Traveled	% Change 2003-2007
Bucks	13,623,663	13,841,563	1.60%
Chester	11,759,569	12,125,773	3.11%
Delaware	9,890,534	10,322,720	4.37%
Montgomery	18,997,186	19,392,386	2.08%
Philadelphia	16,107,101	16,378,032	1.68%
Burlington	12,720,899	12,887,027	1.31%
Camden	10,438,844	11,204,966	7.34%
Gloucester	7,221,846	7,460,043	3.30%
Mercer	8,914,115	9,769,541	9.60%
5 PA Counties	54,270,952	72,060,474	32.78%
4 NJ Counties	39,295,704	41,383,663	5.31%
Region	93,566,656	113,444,137	21.24%

Between 2003 and 2007 data maintained by the Pennsylvania Department of Transportation and the New Jersey Department of Transportation indicates that the annual number of vehicle miles travelled increased 21.24 percent. The five Pennsylvania counties experienced an increase of 32.78% in vehicle miles travelled. Delaware County had the largest increase in vehicle miles traveled of the five Pennsylvania counties. These statistics help demonstrate the increased usage of motor vehicles on the area's roadways.

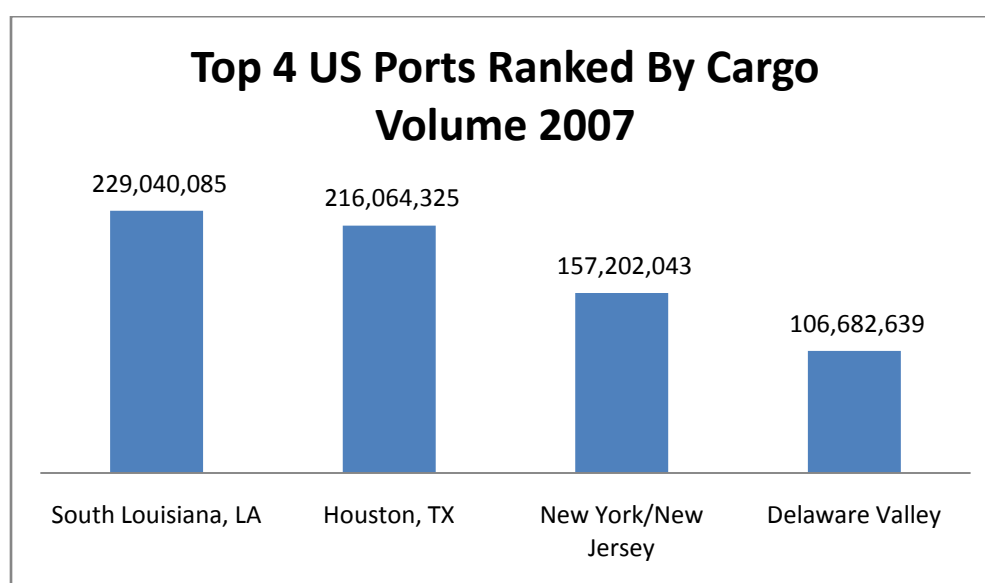
Data from the U.S. Census Bureau's *American Community Survey* for 2002 and 2006 confirms the region's use of motor vehicles as the primary mode of transportation. The most recent statistics indicate more than 80% of commuters drive to work alone or carpool.

<u>COMMUTE TO WORK 2002-2006</u>					
Mode of Transport	2002 Commuters	2002 %	2006 Commuters	2006 %	% Change '02-'06
All Workers	2,455,246	100%	2,531,512	100%	3.11%
Drove Alone	1,859,167	75.72%	1,852,684	73.18%	-0.35%
Carpooled	196,144	7.99%	227,780	9.00%	16.13%
Public Transport (Not Taxi)	231,743	9.44%	238,715	9.43%	3.00%
Walked	78,136	3.18%	97,882	3.87%	25.27%
Taxi/Motorcycle/Bike/Other	26,736	1.09%	32,813	1.30%	22.73%
Worked at Home	63,320	2.58%	81,638	3.22%	28.93%

It appears that the region's network of roadways is capable of handling the current demand, but the shift in population and employment centers away from Center City Philadelphia is occurring faster than existing network can be expanded. The potential to expand the current roadway system is finite based on the nature and extent of existing land uses. Without increased reliance upon public transportation, the roadway system will not be able to cope with long term demand.

Air Transportation. The Philadelphia International Airport contains seven (7) terminal buildings with 120 boarding gates located on approximately 2,357 acres in Tinicum Township, Delaware County and the City of Philadelphia. Twenty nine (29) airlines provide more than 600 daily flights to 122 domestic and international destinations. The airport is within a 45 minute drive of the outermost areas of the region. For calendar year 2007, Philadelphia International Airport ranked 17th in passenger enplanements and 13th in cargo landed.

Port Facilities. The Delaware Valley region has five (5) deep water port facilities on the Delaware River in Camden-Gloucester, NJ, Chester, PA, Marcus Hook, PA, Paulsboro, NJ, and Philadelphia, PA. According to the American Association of Port Authorities, the five Delaware River ports handled 106,682,639 tons of cargo in 2007. The combined throughput of the Delaware Valley's cargo facilities ranks fourth in the United States behind the ports of South Louisiana, LA, Houston, TX, and New York/New Jersey.



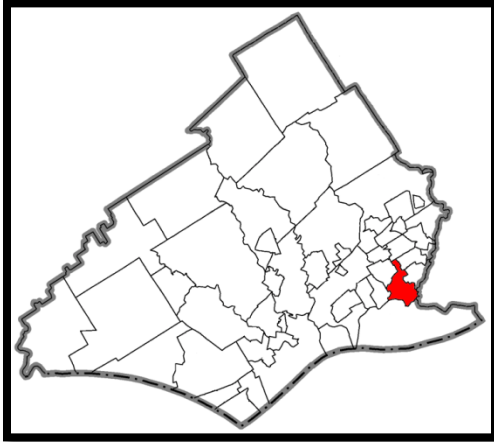
The South Jersey Port Corporation recently announced plans to construct a new port on the east side of the Delaware River on the site of a former BP oil refinery in Paulsboro, NJ. The Philadelphia Regional Port Authority also announced plans for the SouthPort container handling facility on the west side of the Delaware River south of the Walt Whitman Bridge. The US Army Corps of Engineers has begun the process to deepen the main shipping channel of the Delaware River from 40 feet to 45 feet. The \$330 million dredging project, which is scheduled to start in 2009, will extend approximately 100 miles from Philadelphia to the mouth of the Delaware River. Proponents anticipate that the dredging will make the region's ports more competitive and attract operators of cargo ships that require a channel deeper than 40 feet.

Passenger Rail. The region benefits from an extensive network of public transportation facilities. Amtrak provides passenger rail between Washington, DC and Boston, MA along the northeast corridor and between Philadelphia and Harrisburg, PA. The Southeastern Pennsylvania Transportation Authority (SEPTA) provides regional rail and bus services connecting Center City Philadelphia to Bucks County, PA, Delaware County, PA, Montgomery, PA, and Mercer County, NJ. Commuters from Mercer County, NJ and Camden County, NJ can

use NJ Transit's rail service to access Center City Philadelphia. The Port Authority Rail Corporation (PATCO) also connects suburban Camden to Center City Philadelphia by way of a high speed rail line.

Area Conclusion

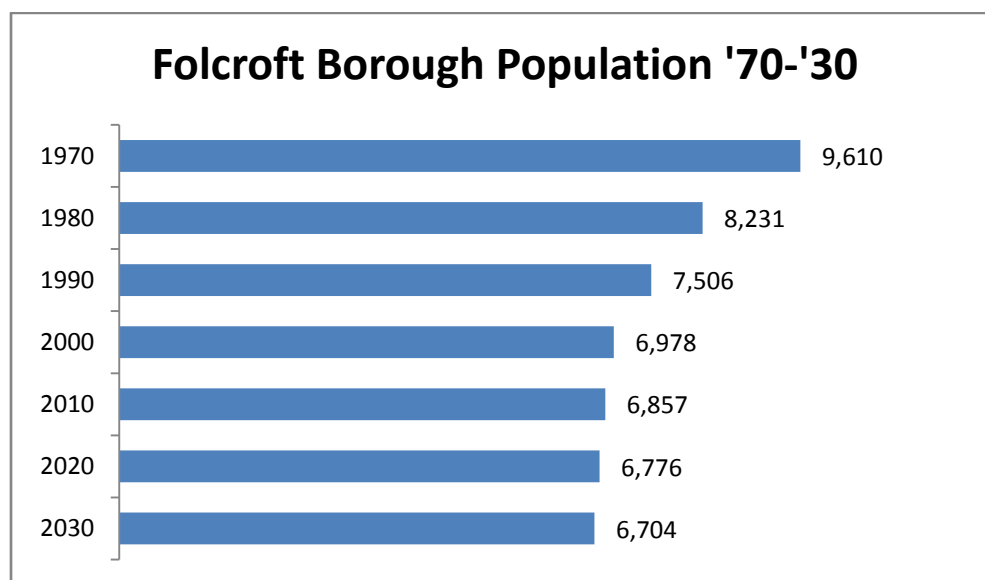
Delaware County is in a state of flux. While the county's overall population will remain virtually unchanged by 2030, municipalities in western Delaware County will continue to gain residents while the trend of population loss will continue in the older communities in the east. Forecasts also indicate that Delaware County will not experience a dramatic growth in employment like the remainder of the Philadelphia suburbs. While estimates for Delaware County's future employment predict a modest overall growth, the county will rely upon the services industries to provide more than one-half of all employment by 2030.

Neighborhood

The subject is located in the Folcroft West Industrial Park in Folcroft Borough, Delaware County. One of Delaware County's 49 municipalities, Folcroft Borough is situated in the southeastern portion of county. Collingdale Borough and Sharon Hill Borough combine to create Folcroft Borough's northern boundary. Darby Township and the City of Philadelphia are located to the east. Tinicum Township abuts to the south. Norwood Borough and Glenolden Borough form the western boundary. The Southeast Delco School District serves Folcroft Borough, Collingdale Borough, Darby Township, and Sharon Hill Borough.

Folcroft Borough contains 1.40 square miles, or 0.73% of Delaware County's land area. The largest municipality in Delaware County is Radnor Township with 13.80 square miles or 7.24 percent. The smallest municipality is Millbourne Borough with 0.08 square miles or 0.04% of the county land area.

Folcroft Borough's population reached its zenith in 1970 with 9,610 persons. Since 1970, Folcroft Borough lost residents in every census from 1980 to 2000. Between 1970 and 1980, Folcroft Borough's population fell from 9,610 inhabitants to 8,231 inhabitants, a loss of 1,379 persons or -14.35 percent. In the next decade, Folcroft Borough lost 725 residents (-8.81%) when the population dropped to 7,506 persons in 1990. The 20th Century closed with Folcroft Borough's population declining by another -7.03% (528 persons) to fall to 6,978 persons. On an aggregate basis, Folcroft Borough lost 2,632 residents, 27.39% of the population, between 1970 and 2000.



DVRPC anticipates that Folcroft Borough's population will continue to decline in 2010, 2020, and 2030, but at a reduced pace. Forecasts for 2010 indicate that Folcroft Borough will fall to 6,857 persons in 2010, a loss of 121 residents or -1.73 percent. Between 2010 and 2020, Folcroft Borough's population will shrink by 81 residents (-1.18%) from 6,857 persons to 6,776 persons. DVRPC's estimate for 2030 indicates that Folcroft Borough will shed another 72 inhabitants (-1.06%) to reach a population of 6,704 persons. On the whole, forecasts expect that Folcroft Borough's population will decline by 274 persons, or -3.93%, from 2000 to 2030.

The table on the following page summarizes the land uses in Folcroft Borough between 1990 and 2005. According to the most recent statistics from the DVRPC, the John Heinz National Wildlife Refuge occupies more than 180 acres of land in Folcroft Borough reducing the municipality's developable land area to approximately 715 acres. Based on 715 acres of potentially developable land, Folcroft Borough is more than 70% in 2005. From 1990 to 2005, the borough's inventory of vacant land fell by more than 30 percent.

Residential development, single family and multiple family, is Folcroft Borough's largest classification of developed land containing just more than 20% of the borough's land area. However, the amount of land used for residential purposes fell by more than 20% between 1990 and 2005. Industrial land is the second largest of Folcroft Borough's developed land classifications based on acreage. Land classified as transportation, which includes impervious surfaces for roads and parking lots, increased by more than 50% from 1990 to 2005.

<u>FOLCROFT BOROUGH LAND USES 1990-2005</u>					
	1990 Acres	1990 % of Total	2005 Acres	2005 % of Total	% Change 1990-2005
Total	894.56	100.00%	894.56	100.00%	0.00%
Total Developed	490.08	54.78%	517.12	57.81%	5.52%
Single Family	75.26	8.42%	74.56	8.33%	-0.93%
Multiple Family	146.55	16.38%	112.65	12.59%	-23.13%
Industrial	134.80	15.07%	138.48	15.48%	2.73%
Transportation	62.79	7.02%	97.83	10.94%	55.81%
Utilities	0.00	0.00	0.00	0.00%	0.00%
Commercial	42.62	4.76%	57.89	6.47%	35.83%
Community Service	9.86	1.10%	17.18	1.92%	74.24%
Military	0.00	0.00%	0.00	0.00%	0.00%
Recreation	18.21	2.04%	18.63	2.08%	2.31%
Agriculture	0.00	0.00%	0.00	0.00%	0.00%
Mining	0.00	0.00%	0.00	0.00%	0.00%
Wooded	34.30	3.83%	31.90	3.57%	-7.00%
Vacant	238.15	26.62%	162.09	18.12%	-31.94%
Water	132.02	14.76%	183.46	20.51%	38.96%

The trend in land use patterns for Folcroft Borough reinforces the trends in population for Folcroft Borough. The residential population and the inventory of residential land are on the decline. More of the land in Folcroft Borough is now devoted to parking lots and other



FOLCROFT WEST INDUSTRIAL PARK						
Address	Clear Height	Total SF	Drive Ins	Loading Docks	% Leased	Yr Built
1 700 Ashland Ave	14'0"	6,000	4	0	0	1975
2 701 Ashland Ave	20'0"	82,500	2	35	100	1981
3 701 Ashland Ave	18'0"	90,000	1	7	100	1981
4 701 Ashland Ave	20'0"	90,000	1	6	100	1989
5 906 Ashland Ave	12'0"	27,500	1	2	100	1984
6 1050 Ashland Ave	16'0"	30,375	2	5	100	1986
7 1111 E Ashland Ave	24'0"	35,000	1	2	100	1975
8 700 Carpenters Xing	20'0"-22'0"	60,000	2	8	50	1980
9 850 Carpenters Xing	16'0"	16,000	2	9	100	1980
10 900 Carpenters Xing	14'0"-16'0"	25,600	1	7	0	1981
11 801 Carpenters Xing	14'0"-16'0"	43,000	3	8	90.7	1982
12 1830 Columbia Ave	18'0"-20'0"	52,000	1	6	100	1973
13 1833 Columbia Ave	16'0"	13,000	1	1	100	1973
14 1-7 Darby	20'0"	52,500	3	20	100	1982
15 1-10 Darby Commons	16'0"	32,000	1	22	90	1982
16 101-110 Darby Commons	16'0"	42,500	1	4	90	1982
17 111-122 Darby Commons	20'0"	55,200	1	7	100	1982
18 1540-1544 Delmar Dr	15'0"	9,000	3	0	100	1980
19 710 Henderson Blvd	13'0"	12,000	0	1	100	1982
20 777 Henderson Blvd	14'0"	33,800	0	11	100	1980
21 777 Henderson Blvd	14'0"	51,450	0	9	100	1980
22 805 Henderson Blvd	15'0"	15,800	1	1	100	1968
23 830-850 Henderson Blvd	18'0"	21,250	0	0	100	1980
24 950 Henderson Blvd	20'0"	21,250	1	3	100	1980
25 1 Horne Dr	18'0"	20,000	1	4	100	1969
26 2 Horne Dr	18'0"	24,000	1	1	100	1945
27 3 Horne Dr	17'0"	32,000	4	4	100	1963
28 5 Horne Dr	20'0"	36,940	2	1	100	1969
29 6 Horne Dr	20'0"	33,449	1	2	100	1985
30 400 Kaiser Dr	16'0"	9,000	1	1	100	1975
31 401-499 Kaiser Dr	24'0"	56,818	2	27	100	2005
32 500 Kaiser Dr	18'0"	24,000	2	2	100	1971
33 514 Kaiser Dr	18'0"-20'0"	32,000	1	3	100	1968
34 519 Kaiser Dr	22'0"	127,223	1	15	25.93	1971
35 519 Kaiser Dr	22'0"-24'0"	44,300	4	12	0	2008
36 600 Kaiser Dr	20'0"	110,000	1	0	100	1980
37 44 Primos Ave	16'0"	88,300	5	15	100	1975
38 780-800 Primos Ave	22'0"	100,000	2	16	100	1989
39 800 Primos Ave	22'0"	61,647	9	13	100	1989
40 801 Primos Ave	22'0"	50,000	1	5	100	1989
41 1 Tura Ln	16'0"	26,340	2	3	66.78	1970
42 3 Tura Ln	16'0"	22,000	2	3	100	1980

The Folcroft West Industrial Park contains 1,815,742 square feet. The average building contains 43,232 square feet. Clear ceiling heights range from 14 feet to 24 feet. The oldest building was built in 1945, and all but two of the existing buildings were built prior to 1990. Despite the relatively older age of the majority of the buildings and the relatively low ceiling heights, occupancy remains strong with relatively few vacancies. Accordingly, the Folcroft West Industrial Park appears to be a suitable location for the uses permitted in the LIB zoning district.

The Subject Land

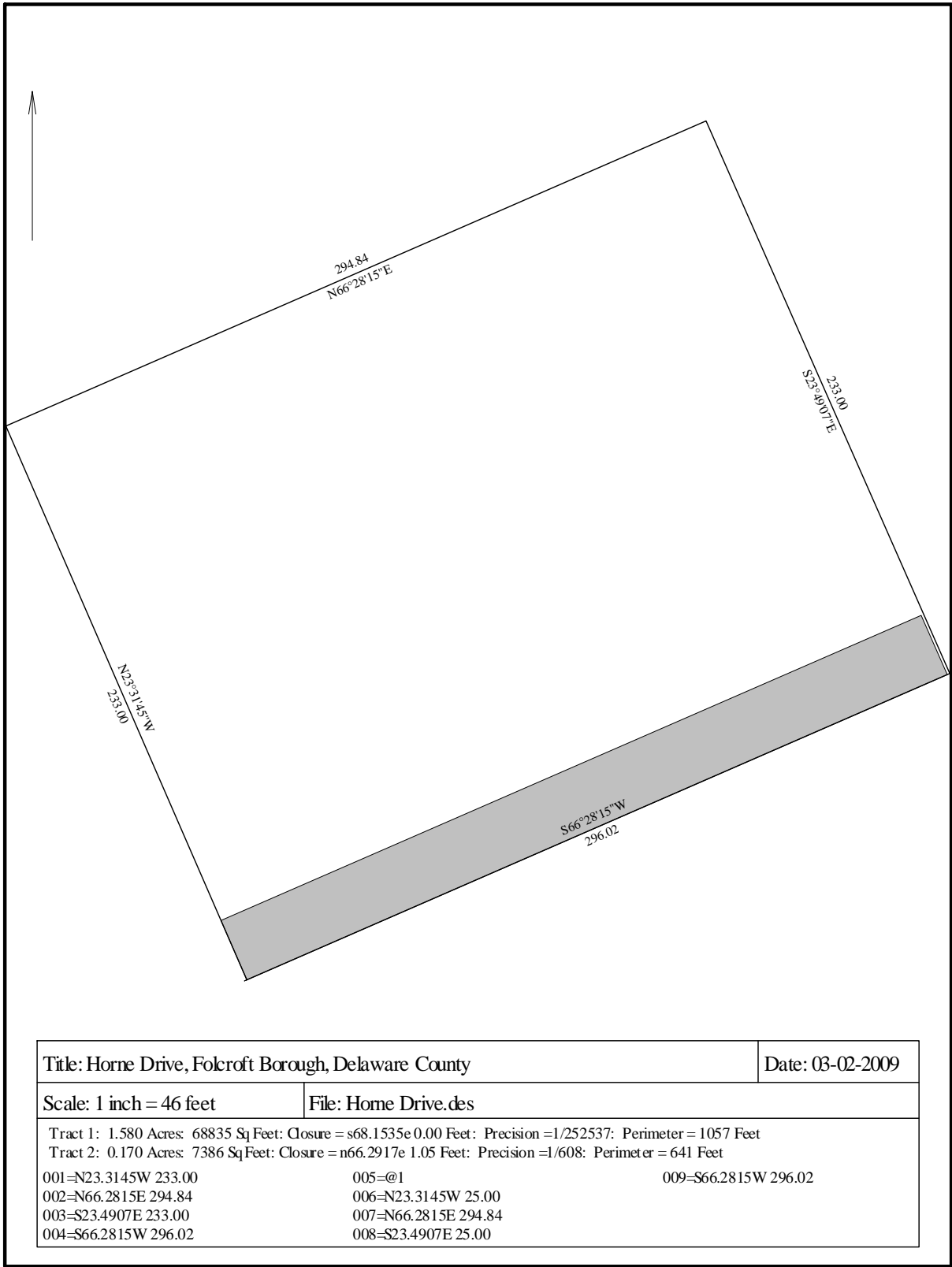


Figure 6 - Subject Legal Description

Summary. The subject is a 1.58 gross acre, 1.41 net acre irregularly shaped interior parcel with 296.02' frontage on the north side of Horne Drive, a 50 foot wide privately maintained roadway.

Site Dimensions, Area and Shape. The subject property is an irregularly shaped interior parcel containing a gross land area of 1.58 acres (68,825 square feet) measured from the centerline of Horne Drive, a 50 foot wide private roadway. Net of the 0.17 acres (7,405 square feet) within the Horne Drive right of way, the subject has 1.41 acres of useable land. The east to west width of the tract ranges from 294.84 feet at the rear (northern) boundary to 296.02 feet at the southern boundary along Horne Drive. Measured from the centerline of Horne Drive, the site's depth (north to south) is 233.00 feet. Net of the 25' within the Horne Drive right of way, the tract is only 208.00 feet deep.

<u>SITE INFORMATION</u>		
	<u>To Center of Horne Drive</u>	<u>Net of Horne Drive</u>
Land Area	1.58 Acres	1.41 Acres
Minimum Width	294.84 Feet	294.84Feet
Maximum Width	296.02 Feet	296.02Feet
Minimum Depth	233.00 Feet	208.00Feet
Maximum Depth	233.00 Feet	208.00Feet

Topography. The tract has a mildly sloping topography rising in a northerly direction from the Horne Drive frontage to the rear property line. The elevation of the subject land is generally at or above street grade. Storm water runoff appears to adequately drain across the site from northeast to southwest.



Figure 7 - Topographic Map

Drainage, Soil and Subsoil Conditions. According to the United States Department of Agriculture, the soil beneath the subject property is classified as BeA Beltsville silt loam, 0 to 3 percent slopes. The addendum contains copies of the relevant portions of the *Soil Survey Chester and Delaware Counties, Pennsylvania*.¹⁴ The *Soil Survey* classifies the subject soil as Group 10 for building sites.¹⁵ “These soils are moderately well drained, but in most years they have a seasonal high water table for a period of several weeks. The high water table causes sealing and drainage problems in basements. The soils have gentle slopes that are favorable for stores, factories, schools, and similar commercial, industrial, or institutional construction.”¹⁶ While the subject area may have a seasonal high water table, the soil has characteristics suitable for a wide range of commercial and industrial development.



Figure 8 - Soil Map

Access. The subject has 296.02' frontage on the north side of Horne Drive. Horne Drive is a macadam paved roadway carrying two lanes of opposing traffic on an east/west axis within a 50 foot wide right of way. The subject and the neighboring properties on Horne Drive share the maintenance obligations on a pro rata basis. Horne Drive originates 310 feet west of the subject at School Lane and terminates immediately east of the subject in a cul-de-sac.

¹⁴ U.S. Department of Agriculture. Soil Conservation Service. *Soil Survey Chester and Delaware Counties, Pennsylvania*. Washington, DC: Government Printing Office, 1963.

¹⁵ *Soil Survey Chester and Delaware Counties, Pennsylvania*, 57.

¹⁶ *Soil Survey Chester and Delaware Counties, Pennsylvania*, 57.



Figure 9 - Looking East on Horne Drive from School Lane

School Lane is a two lane macadam paved roadway that carries two lanes of opposing traffic on a north/south axis. Folcroft Borough maintains School Lane. School Lane provides access to Delmar Drive, the immediate area's primary commercial thoroughfare, approximately 0.40 miles north of the subject. Residential development fronts on the entirety of the west side of School Lane for approximately 0.50 miles from Delmar Drive to the terminus of School Lane at the John Heinz Wildlife Refuge approximately 210 feet south of the intersection of School Lane and Horne Drive.



Figure 10 - Looking West on Horne Drive from the Cul-De-Sac

The Delcroft School, a public school that serves children from kindergarten to eighth grade in the Southeast Delco School District, is located approximately 0.25 miles north of the

subject on the east side of School Lane. Immediately south of the Delcroft School on the east side of School Lane is the Kinder Care children's private daycare center. Due to the presence of Delcroft School and the daycare center, Folcroft Borough prohibits truck traffic on School Lane from 7:00 AM to 9:00 AM and from 2:00 PM to 3:30 PM. The maximum posted speed limit on School Lane is 25 miles per hour, and a school zone reduces vehicle traffic to 15 miles per hour for approximately 0.25 miles between Delmar Drive and Fowler Road.



Figure 11 - Looking North on School Lane with Horne Drive on the Right

Utilities. The following table lists the utility services connected to the tract and in service on the date of valuation.

<u>UTILITIES</u>	
Sanitary Sewer	Delaware County Regional Water Quality Control Authority (DELCORA), municipal
Storm Sewer	None
Water	Aqua Pennsylvania
Telephone	Verizon is the local provider of local telecommunications. Long distance is provided by various companies. Verizon also maintains the lines and equipment in the region.
Natural Gas	PECO Energy.
Electric	PECO Energy is the local generator of electricity and one of the local providers of electric service. PECO Energy is also the transmission and distribution company for the area.

Site Improvements. Land and site improvements that benefit the utilization of the property include:

<u>SITE IMPROVEMENTS</u>	
Curbs	None
Sidewalks	None
Driveways/Parking Areas	Approximately 20,000 square feet of macadam paving provide off-street parking and truck maneuvering space
Pedestrian Walks	Concrete
Fencing	Approximately 715 linear feet of 6 foot high chain link fencing surrounds the perimeter of the site
Rail	None
Retaining Walls	A 5' high ornamental stone wall at the front pedestrian entrance to the office wing is utilized as a landscape planter
Fuel Tanks	None identified
Landscaping	Small shrubbery is located in a stone walled planter at the front pedestrian entrance to the office area

Flood Zone. The subject is not situated in a flood plain according to recently published flood plain maps. (Community - Panel # 42045C0048D; Zone X; effective date of September 30, 1993). The addendum contains a copy of the flood plain map.

Proximity to Nuisances, Hazards or Detrimental Influences. The website for the United States Environmental Protection Agency (EPA) indicates that the site of the former Folcroft Landfill is located approximately 0.50 miles east of the subject. The Folcroft Landfill is one of two former landfills comprising the Lower Darby Creek area registered on the National Priorities List as one of the nation's serious hazardous waste sites that qualify for federal cleanup money.

According to the EPA's Remedial Project Manager for the Lower Darby Creek area, Kristine Matzko, , the Folcroft Landfill contains approximately 56 acres along Darby Creek and Hermesprota Creek in Darby Township and Folcroft Borough. The Folcroft Landfill operated from the 1950s to the 1970s accepting municipal, demolition, and hospital wastes. The United States Fish and Wildlife Service purchased the site in 1980 to increase the size of the adjacent John Heinz National Wildlife Refuge. Monitoring wells now contain evidence of metals and solvents. Ms. Matzko indicated that the soil cap installed on the Folcroft Landfill site following its closure in 1973 does not conform to today's more stringent requirements. In its current state, the Folcroft Landfill may affect the area's groundwater and surface water, and leachate threatens

Darby Creek and Hermesprota Creek.

Ms. Matzko stated that the EPA recently finished collecting water and soil samples, and that the environmental risk assessment is now underway. The EPA will most likely continue the risk assessment through 2009 and into 2010. Once the risk assessment is complete, the EPA will consider alternatives to remediate the site. Based on the current pace of the investigation, Ms. Matzko estimates that several years will pass before the EPA remediates the potential environmental risks created by the Folcroft Landfill.

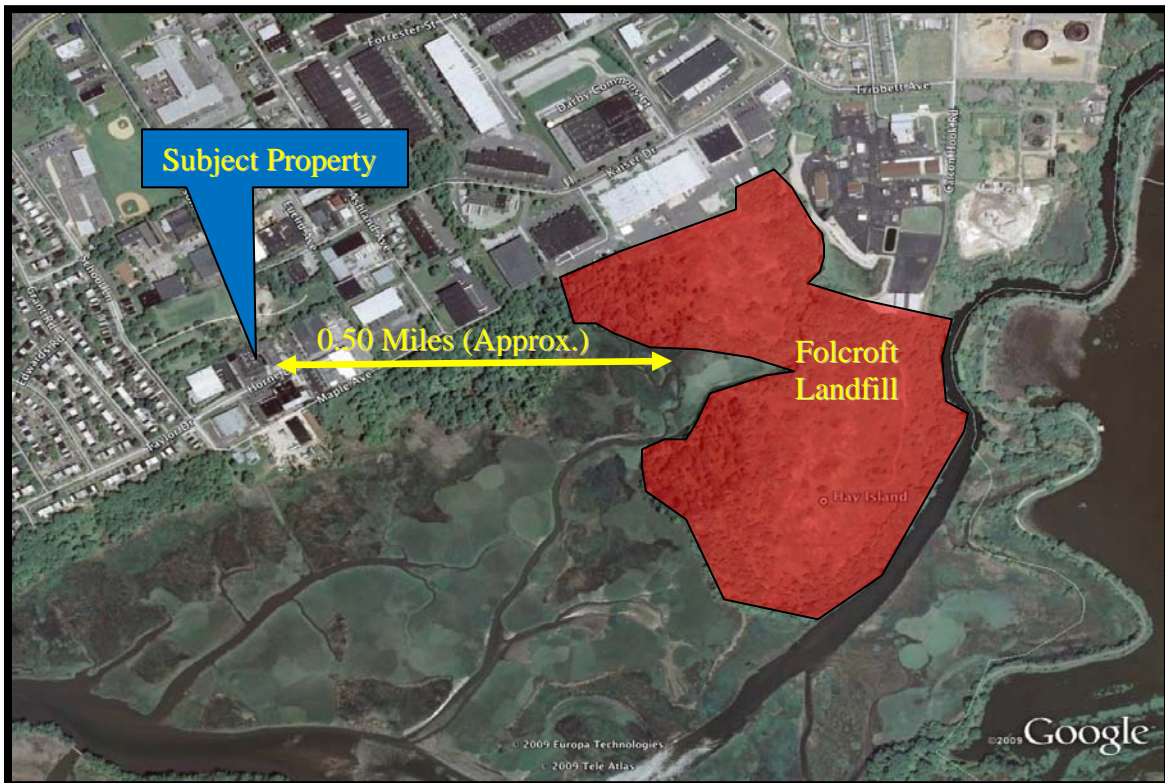


Figure 12 - Approximate Location of the Folcroft Landfill

The subject's proximity to the Folcroft Landfill site does not appear to jeopardize the current utilization of the subject property. Development in the area does not rely upon the groundwater as a source for drinking water. The subject property is at a higher elevation than the potentially contaminated areas. Storm water flows away from the subject and towards the Folcroft Landfill. Furthermore, the current flood plain maps indicate that the subject is outside areas susceptible to contamination from flood waters carrying pollutants from the Folcroft Landfill.

Easements. The subject's legal description includes approximately 7,405 square feet (25.00 feet deep, 296.02 feet wide) within the right of way of Horne Drive, the private roadway that serves the subject property and the surrounding parcels. The deed to the subject does not provide limitations on the utilization of Horne drive. Presumably, the surrounding properties have the unlimited right to use Horne Drive in common with the subject property.

Conclusion. The subject land features both positive and negative characteristics that one must consider. Although the site has a slightly irregular shape, it has a uniform depth that allows some flexibility in the placement of improvements relative to vehicle parking and circulation areas. The site has almost 300 feet of frontage on a developed street that permits more than one access point. The land's mildly sloping topography does not feature elevation changes that would increase construction costs. Storm water also appears to drain efficiently from the site

The underlying soil is capable of supporting commercial and industrial development without extra support or piling. A flood zone is not present that could limit the site's developable area or utility. The subject land is situated in an industrial park less than one-half mile from the area's main commercial roadway. Finally, all public utilities serve the tract.

The site's 1.58 acre land area may not meet the minimum site requirements of some users of industrially zoned land. According to a 2006 change in the zoning ordinance discussed in depth later in this report, Folcroft Borough increased the minimum lot area for the applicable zoning district to 2.00 acres. The change in the minimum lot size is evidence of a shift in market preferences to larger industrial sites to accommodate increased truck and passenger vehicle traffic. In the nearly 40 years since the subdivision of the subject land, users of industrially zoned land increased their requirements for employee parking. Furthermore, trucks supplanted rail as the primary mode of transportation for raw materials and finished goods.

Limitations on access to the subject may also deter certain users. Delivery vehicles must use School Lane to travel between Delmar Drive and Horne Drive. Folcroft Borough prohibits truck traffic during times when students arrive at and leave the public elementary school on School Lane. The concentration of residences to the west of the subject along School Lane and the proximity of an elementary school on the sole truck access route increases the potential for conflicts between residents and industrial users. A segment of the market requiring unimpeded truck access may seek alternative locations without the subject's limitations.

While the land area and access may reduce the number of potential users, the site has characteristics that have appeal. The subject land can support a variety of commercial and industrial uses without the cost to hurdle challenges presented by steep slopes, an irregular site configuration, poor drainage, the need for piling, and the lack of public utilities. Users requiring smaller tracts of land in secondary locations will be able to adapt this site to a number of commercial or industrial uses.

The Subject Building Improvements

The subject is improved with a one story and part two story light industrial building described as follows:



Figure 13 - Office Area

Site Preparation

- *Excavation and Backfill:* Approximately 33,040 square feet of excavation and backfill for building foundations.
- *Site Preparation and Earthwork:* Preparation of the site required light clearing and cutting, and 7,500 cubic yards of filling.
- *Utilities:* The installation of underground domestic water, natural gas, telecommunication, and sanitary sewer services required excavation and backfill of areas ranging from 50 linear feet to 200 linear feet.



Figure 14 - Manufacturing Area

Exterior Components

- *Perimeter Walls:* 15,800 square feet of painted reinforced masonry block walls, and 4,400 square feet of Styrofoam insulation face brick with 8 inch reinforced masonry wall backup.
- *Perimeter Wall Insulation:* None.
- *Perimeter Wall Height:* 15 feet to 27.50 feet.
- *Wall Ornamentation:* None.
- *Wall Appurtenances:* None.
- *Roof Structure:* 31,765 square feet of flat metal roof decking.
- *Roof Cover:* 31,765 square feet of asphalt built up surface with a granular cap sheet, and 1,275 square feet of galvanized metal.
- *Roof Insulation:* 31,765 square feet of rigid fiberboard, and 1,275 square feet of fire proof spay insulation in the utility room.
- *Roof Openings and Specialties:* 448 square feet of roof skylights with aluminum curb and acrylic glazing, and a galvanized steel roof ventilator.
- *Rain Conductors:* Painted steel roof gutters mounted at the eaves, painted metal roof scuppers, and painted metal downspouts.

- *Pedestrian Doors:* Two (2) aluminum and glass double pedestrian doors with panic hardware, and six (6) steel single pedestrian doors.
- *Truck Doors:* Seven (7) overhead steel rolling truck doors with electric operators.
- *Rail Doors:* None.
- *Windows:* Fifteen (15) aluminum slider units, four (4) double hung aluminum units, nine (9) aluminum units with hinged swing bottom sections, and seven (7) fixed picture units.



Figure 15 - First Floor Shop Area

Frame Components

- *Footings and Foundations:* 360 cubic yards of reinforced cast-in-place concrete with 6,500 square feet of one inch thick foam board insulation.
- *Basements and Substructures:* None.
- *Pilings and Caissons:* None.
- *Perimeter and Interior Frame:* 185 tons of welded structural steel.
- *Bay Sizes:* The manufacturing area is 100 feet by 140 feet, one warehouse bay is 28 feet by 97 feet, and the second warehouse bay is 52 feet by 149 feet.



Figure 16 - Mezzanine Locker Room Area

Interior Construction

- *Ground Floor Structure:* 33,040 square feet of five (5) inch reinforced concrete slab on grade.
- *Elevated Floor Structure:* Wood framing and plywood decking in the second story office area.
- *Stairways:* Three (3) sets of steel stairways with cement fill metal pans and rails, and rubber stair treads.
- *Interior Surface of Exterior Walls:* Painted concrete in the warehouse and shop areas, and 5,400 square feet of painted drywall on metal studs on the perimeter of the office areas.
- *Interior Partitioning:* 6,200 square feet of painted drywall on metal studs with batt insulation.
- *Floor Finish:* 25,540 square feet of concrete topping and epoxy coat sealer in the warehouse and shop areas, 4,300 square feet of vinyl composition tile, 3,800 square feet of ceramic tile, 3800 square feet of carpet, and 1,900 square feet of vinyl cove base.
- *Ceiling Finish:* 11,400 square feet of suspended painted metal grid with mineral fiber tile.
- *Ceiling Height:* 10 feet in the mezzanine section, 17 feet in the manufacturing section, and 20 feet in the warehouse areas.

- *Interior Doors:* Thirty one (31) single wood doors with metal frames, and ten (10) double wood doors with metal frames.
- *Wall Finish:* Painted drywall in the office areas and painted masonry block in the warehouse and shop areas.
- *Trim and Finish:* Wood sashes and wood trim for interior window moldings.



Figure 17 - Warehouse Area

Facilities

- *Lavatories and Locker Rooms:* The women's lavatory has ceramic tile floors, one ceramic sink, and a ceramic toilet. The men's lavatory has ceramic tile floors, two ceramic sinks, two ceramic urinals, and two ceramic toilets. The new men's locker room contains one ceramic sink, one ceramic urinal, and a ceramic toilet. The second floor mezzanine area (which is no longer used) contains six ceramic sinks, three ceramic toilets, and three ceramic urinals.
- *Offices:* The first floor office area includes a reception area, one (1) conference room (25 feet by 16 feet), an executive office (24 feet by 25 feet) with a private wash room, an engineer's office (13 feet by 13 feet) with a private wash room, and seven (7) private offices ranging in size from 7 feet by 10 feet to 17 feet by 13 feet. The second floor office area contains two private offices and one open office area.
- *Cafeterias:* The break room has hardwood base cabinets, hardwood wall cabinets, and plastic laminate countertops.

- *Vending Areas:* None.
- *Interior Structures (Mezzanines):* 2,000 square feet of metal decking and four (4) inch concrete fill in the mezzanine addition.



Figure 18 - Warehouse Area

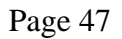
Mechanical Systems

- *Plumbing:* 800 linear feet of three-quarter inch copper piping for domestic water distribution, and 400 linear feet of cast iron piping for sanitary sewer.
- *Fire Protection:* The subject does not have a sprinkler system.
- *Heating and Cooling:* Twenty (20) ceiling suspended gas fired infra red unit heaters for the warehouse and shop areas, and one (1) roof mounted gas fired multiple zone HVAC system for the office areas.
- *Ventilation:* Four (4) wall mounted exhaust fans, and 6 ceiling mounted exhaust fans.
- *Electrical Service and Distribution:* Two (2) 600 amp three (3) phase four (4) wire panel boards and two (2) 600 amp sets of switch gear.
- *Electrical Lighting and Power:* Recessed fluorescent lighting fixtures for the office areas, high intensity discharge fixtures for the warehouse and shop areas, emergency lighting, and duplex wall receptacles.
- *Security System:* None.

- *Domestic Hot Water:* Five (5) 52 gallon electric hot water heaters.
- *Elevators:* None.
- *Cranes:* One (1) 5 ton capacity bridge crane, one (1) 15 ton capacity bridge crane, one (1) 25 ton capacity bridge crane, and nine (9) 1 ton hoists.



Figure 19 - Material Testing Area



Layout and Finish. The subject consists of a two story office section; a one story manufacturing section with one 5 ton bridge crane and nine 1 ton hoists; a one story and mezzanine section containing a first floor work shop and a second floor break room, locker room, and lavatory facilities that are no longer used; a one story shop area and locker room; a warehouse section containing a 15 ton bridge crane; and a warehouse section with a 25 ton bridge crane.

Industrial facilities are generally sold and/or leased on the basis of gross building area. Gross building area is generally computed by measuring from the outside finished surface of permanent outer building walls to the outside finished surface of permanent outer building walls. Rentable building area of a floor is computed by measuring to the outside surface of the dominant portion of the permanent outer building walls, excluding any major vertical penetrations of the floor such as stairways; elevator shafts; dumbwaiters; shafts for conduit, ducts and/or piping; and, in most circumstances, common open spaces such as vestibules and atriums. The subject contains a gross building area of 36,940 square feet distributed as follows:

<u>BUILDING AREA DISTRIBUTION</u>				
	1st Floor	2nd Floor	Total	% of Total
Office	2,666 SF	1,900 SF	4,566 SF	12.36%
Manufacturing	19,910 SF	0 SF	19,910 SF	53.90%
Warehouse	10,464 SF	0 SF	10,464 SF	28.33%
Mezzanine	0 SF	2,000 SF	2,000 SF	5.41%
Total	33,040 SF	3,900 SF	36,940 SF	100.00%

The subject improvements have several features that negatively affect value. Due to the facility being constructed in several stages, there are components of superfluous construction such as interior walls and extra roofing that increase the cost of the facility. The subject facility has a larger percentage of second floor space that is not contiguous which disrupts the flow of personnel within the facility. The second level space also decreases the useable ceiling height beneath the space to less than 10', thus limiting the area to office or similar uses. Combined, these functional inefficiencies slightly limit the utility of the improvements to potential users of the space.

The Americans With Disabilities Act (ADA) became effective on January 26, 1992. I am not qualified to make a specific compliance survey or analysis, nor have I received a specific compliance survey or analysis of the subject to determine whether or not it is in conformity with the various detailed requirements of ADA, if in fact they are applicable to the subject. In the absence of evidence relating to this issue, I have not reflected possible noncompliance with the requirements of ADA in estimating the value of the subject.

Physical Age of the Improvements. The physical age of an improvement or component of an improvement is the period of time between the date of appraisal and the date that construction of the improvement or component of the improvement was completed. The subject

was constructed in stages as summarized in the following table.

WEIGHTED AGE OF THE LONG LIVED COMPONENTS

Section	GBA	Yr Built	Yr of Valuation	Chrono. Age	Weight by GBA	Weighted Age
1 st Story Office	2,666 SF	1970	2008	38 Yrs	0.07	2.74 Yrs
Manufacturing	14,033 SF	1970	2008	38 Yrs	0.38	14.43 Yrs
Manufacturing	2,602 SF	1970	2008	38 Yrs	0.07	2.67 Yrs
Manufacturing	2,000 SF	1988	2008	20 Yrs	0.05	1.08 Yrs
Warehouse	2,716 SF	1974	2008	34 Yrs	0.07	2.50 Yrs
Warehouse	7,748 SF	1980	2008	28 Yrs	0.21	5.87 Yrs
Utility Room	1,275 SF	1985	2008	23 Yrs	0.03	0.79 Yrs
Locker Room	2,000 SF	1988	2008	20 Yrs	0.05	1.08 Yrs
2 nd Story Office	1,900 SF	1980	2008	28 Yrs	0.05	1.44 Yrs
Total	36,940 SF					32.63 Yrs

Based on the relative weight of the gross building area of the subject building sections, the weighted age of the subject is 32.63 years assuming that all of the original components of the subject are still in place on the date of valuation. However, many building components by their very nature, such as the carpet and mechanical systems, are subject to heavy usage and cannot endure for such a long period of time. Accordingly, one must take into account the rehabilitation, renovation, remodeling, and upgrading work completed at the subject facility when calculating the weighted effective physical age.

Based on my discussions with the property owner and the tenant, I estimated the age of the construction components contained in the component cost estimate prepared by David A. Trommelen of Tromco Enterprises, LLC. At my direction, Mr. Trommelen utilized my estimates of the physical ages for the subject components to calculate a weighted effective age for the subject building and site improvements based on the cost of new of each component. Taking into account the rehabilitation, renovation, remodeling, and upgrading work completed at the subject facility, I estimate the weighted effective age of the subject improvements as a whole to be 26.65 years as detailed in the addendum.

Useful Life of the Improvements. The total useful life of an improvement or component of an improvement is the estimated period of time over which the improvement or component can be expected to survive or endure (whether or not there is a market demand for the improvement) in the context of safe habitation. The remaining useful life of an improvement is the estimated future period of time as of the date of appraisal over which an improvement can reasonably be expected to survive or endure in the context of safe habitation. Remaining useful life of an improvement is a function not only of the quality of construction and maintenance but also a function of the level and degree of use to which the improvements are anticipated to be subjected.

While the major structural components of an industrial facility (such as the footings, foundation, and structural frame) can have an indefinite total physical life, there is a practical limitation to the period of time over which the marketplace reasonably budgets for the retirement and/or demolition of these components. Seldom is a component or structure utilized to the point of pending failure or collapse. On occasion a component may wear out earlier than anticipated, but for planning, maintenance, and safety reasons, components are normally classified as to the period of time over which they can reasonably be relied upon to function as anticipated.

Long lived structural components are components which by the nature of the materials of construction and/or the manner by which the materials are assembled and/or installed do not customarily need to be replaced during the existence of the improvements. These components can also reasonably be expected to be serviceable for a longer period of time than the period of time during which the facility as a whole remains habitable or useable.

Medium lived components and systems such as the mechanical systems, interior finishes, and other operating systems and building finishes have much more limited total physical lives than the structure as a whole depending upon the quality of their original installation, the mode of utilization, the level of maintenance, and the nature of their exposure to the elements. These are components of relatively durable materials which support utilization and occupancy but which are not directly exposed to the elements or to direct contact by the personnel or equipment of the occupant. These components can reasonably be expected to be replaced one or more times over the life of the structural components.

Short lived mechanical components and building finishes are components which by their nature are either consumed during the occupancy of the facility and/or exposed to the elements in a fashion which accelerates their physical deterioration. These items can reasonably be expected to be replaced in whole or in part on several occasions during the period of time which the facility as a whole remains habitable.

I estimate the weighted useful life of the improvements to be 50 years.

Quality of the Improvements. I have rated the overall quality of the subject construction to be good based on the following standards:

- *Excellent:* Construction completed to standards substantially exceeding code requirements and reflecting detailed architectural features and ornamentation, intricate design, and highest quality materials; and exhibiting highly skilled workmanship.
- *Good:* Construction completed to standards exceeding code requirements and reflecting at least in part detailed architectural features and ornamentation, attractive design and good quality materials; and exhibiting precise workmanship.
- *Average:* Construction completed to standards just slightly above minimum code requirements and reflecting simple architectural features and ornamentation, ordinary design, and ordinary quality materials; and exhibiting ordinary

workmanship.

- *Low Cost:* Construction completed to standards conforming at best to minimum code requirements and reflecting no special architectural features or other amenities; and exhibiting only casual workmanship.

Maintenance Level Of The Improvements. Maintenance policies vary among the type of facility and the nature of occupants. Taking into account the pattern of routine maintenance of the interior and exterior building components and site improvements and the consistency with which capital improvements have been completed, I rate the overall level of maintenance to be good quality and the appearance of the property is on par with current standards.

Physical Condition of the Improvements. I rated the physical condition of the components of the subject improvements among six general categories as follows:

- *New (Excellent):* Components or groups of components that are in the process of being installed or have recently been installed; that are not yet subject to use, or have been utilized for only a brief period of time; and do not yet evidence any significant wear or tear.
- *Good:* Components or groups of components of recent construction or installation that have not been subjected to accelerated use or exposure; and have been routinely maintained are placed in this category. These components reflect only slight deterioration relative to age and mode of utilization.
- *Average:* Components or groups of components that evidence wear and tear occurring at a more rapid rate than ordinary maintenance routinely corrects.
- *Fair:* Components or groups of components used or exposed in the normal course of occupancy which exhibit deferred maintenance of consequence have been rated as fair.
- *Poor:* Components or groups of components are categorized as poor if these elements can continue to be utilized for a short period of time with only general repairs, but which would require major expenditures to extend their physical lives. Significant deterioration is obvious in components rated as poor.
- *Dilapidated:* Components or groups of components evidencing severe physical deterioration from use, exposure, fatigue, and/or deferral of maintenance are categorized as dilapidated. These components may or may not be operative, but replacement is a near term necessity. The state of these components may approach unsoundness.

During 2006 and 2007 the current occupant invested over \$250,000 to improve the subject property as previously described. Taking into account the quality of construction, the level of maintenance, and the observed condition of the major components of the subject

improvements, I rate the overall physical condition of the subject as average to good.

Functional Characteristics of the Improvements. The term functional utility refers to the ability of a facility to be useful and to meet perceived needs at a given time. Utility and adaptability must be judged in light of the standards of users who compose the market for facilities like the subject. Elements of construction that detract from the functional utility of a facility can originate from the absence of a component which users normally expect to be present; from the presence of a deficient, inefficient, or outdated component; from the presence of a super adequate component; and/or from an inharmonious blending of components within a facility.

The subject improvements have several features that negatively affect value. Due to the facility being constructed in several stages, there are components of superfluous construction such as interior walls and extra roofing that increase the cost of the facility. The subject facility has a larger percentage of 2nd floor space that is not contiguous which disrupts the flow of personnel within the facility. The second level space also decreases the useable ceiling height beneath the space to less than 10', thus limiting the area to office or similar use. Combined, these functional inefficiencies slightly limit the utility of the improvements to potential users of the space.

Effective Economic Age and Remaining Economic Life of the Improvements. It is necessary to distinguish between the physical age (an arithmetic concept) and the effective economic age (an economic concept) of improvements; and to distinguish between physical life (both total physical life and remaining physical life) and economic life (both total economic life and remaining economic life) of improvements. Total economic life of the improvements, remaining economic life of the improvements, and effective economic age of the improvements are defined as follows:

- *Total Economic Life of the Improvements* - The period of time over which improvements to real estate contribute to the value of the property. It is, therefore, the period of time over which a structure may reasonably be expected to be competitive on the market in the use for which it was originally designed, or subsequently renovated or converted.
- *Remaining Economic Life of the Improvements* - The number of years remaining in the economic life of the improvements as of the date of appraisal.
- *Effective Economic Age of the Improvements* - The effective economic age is the difference between the total economic life of the improvements and the remaining economic life of the improvements. It is the age ascribed to the subject to reflect not only its physical age but also its functional adequacy and economic utility.

The total economic life of a facility reflects the period of time over which the facility will not only physically endure, but also the period of time over which it can reasonably be expected to compete for users, and takes into account functional considerations and market conditions, not just physical characteristics of components or structures.

I provided Mr. Trommelen with an estimate of the economic life for each of the components of the subject improvements. My estimate reflects those characteristics of the subject that are functionally inadequate and decrease the subject's economic life as a whole. Based on my estimate of the economic life for each component, I estimate the weighted economic life to be 41.77 years, which I have rounded to 42 years as detailed in the addendum. I estimate the remaining economic life of the subject improvements to be 15 years, indicating an effective economic age of the subject improvements of 27 years.

district regulations.

The subject land is zoned LIB Light Industrial/Business Park under the Folcroft Borough zoning ordinance. Folcroft Borough completed a revision of its zoning ordinance that took effect in July 2006. Relevant provisions of the Folcroft Borough zoning ordinance are in the addendum. The purpose of the LIB district “is to allow for the development of non-nuisance business, laboratory, and light industry geared towards modern, technological uses. District regulations are intended to encourage attractive, large lot, moderate coverage establishments that do not constitute a nuisance or danger to nearby residents.”¹⁷

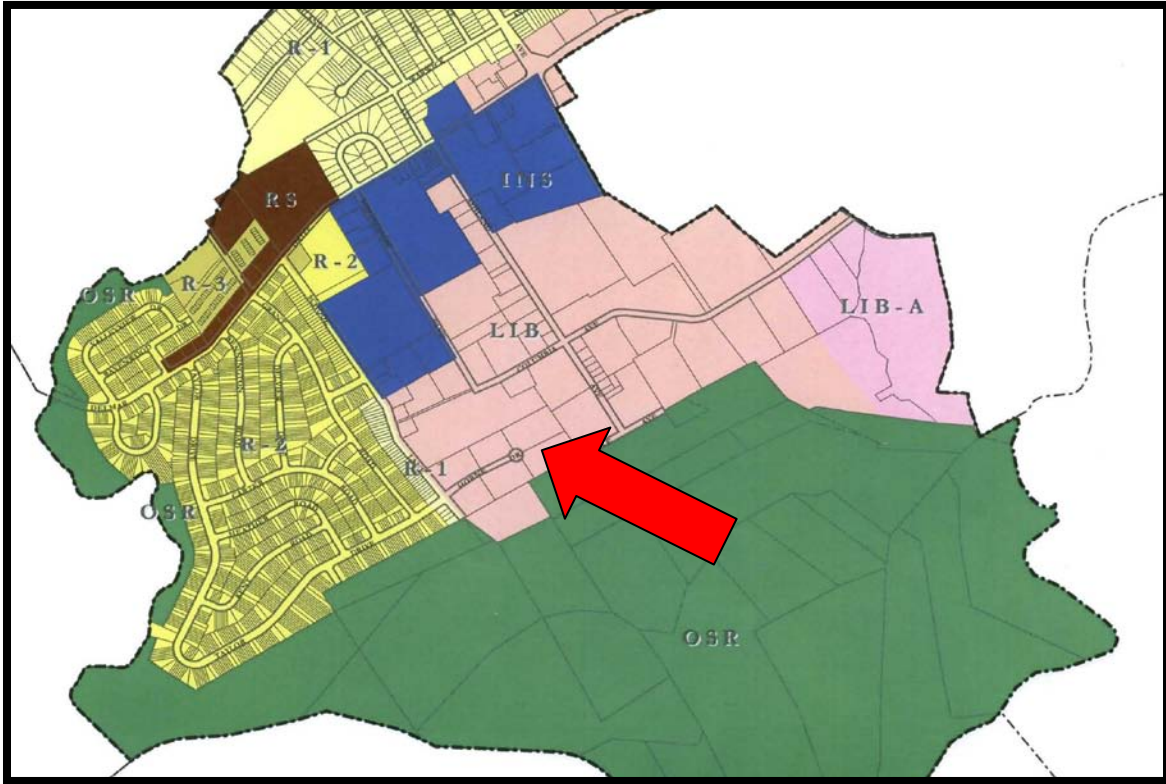


Figure 21 - Zoning Map

Uses Permitted by Right. In the LIB – Light Industrial/Business Park district, the subject may be used for one or more of the following uses by right¹⁸:

- Office building;
- Light industrial uses, as defined in Article 2, that does not constitute a nuisance the neighborhood and nearby residents;
- Laboratory, as defined in Article 2;

¹⁷ Zoning Ordinance Section 900.

¹⁸ Zoning Ordinance Section 901.

- Electronic data processing center, telecommunications hub, information technology firm, and similar technological facility;
- Warehouse, distribution, mail order facility, wholesale showroom, and similar facility;
- Financial establishment such as a bank, lending institution, mortgage broker, and similar facility;
- Business/trade school and/or other indoor and outdoor vocational training within limits set forth in Article 19, Performance Standards;
- Motion picture or television filming, production, or broadcasting facility;
- AM/FM station, production and broadcasting;
- Independent parking garage, excluding long-term parking over 24 continuous hours, subject to area and bulk regulations within this Article, Article 13 Parking Regulations, and Section 1612;
- Cellular Communications Facilities, subject to Section 1523; and
- Health Club or spa, subject to Section 1616.

Conditionally Permitted Uses. Conditionally permitted uses¹⁹ in the LIB Light Industrial/Business Park district include:

- Child day care centers, subject to Section 1508; and
- Uses of the same general character as permitted uses “provided that no resource recovery, waste treatment, landfill, or other use having a negative or detrimental impact on the environment, neighboring residents, or surrounding neighborhood shall be permitted.”

Permitted Accessory Uses. Permitted accessory uses²⁰ in the LIB Light Industrial/Business Park district include:

- Restaurant, café, snack bar, or similar use for employees or customers of any use permitted in the district;
- Off-street parking and loading, subject to Article 13, Parking Regulations;
- Signage, subject to Article 14, Signs;

¹⁹ Zoning Ordinance Section 902.

²⁰ Zoning Ordinance Section 903.

- Storage building, subject to Section 1504;
- Recreational or assembly area for employees and customers;
- Living quarters for a watchman or caretaker;
- Commercial drop-off and pick-up boxes, stations for mail and newspaper vending machines, provided that such boxes shall not be located within a right-of-way of a public street;
- Small collection facility for recyclables;
- Cellular phone antennae not amounting to an independent structure; and
- Any accessory use on the same lot and customarily incidental to the principal use on the property and not detrimental to the area.

Area and Bulk Requirements. The following table compares the area and bulk requirements²¹ for the LIB – Light Industrial/Business Park district and the subject’s actual features on the date of valuation.

<u>AREA AND BULK REGULATIONS</u>		
	Required	Actual
Lot Size	2 Acres	1.58 Acres
Yards (Front, Side and Rear)	30’	25’ Front Only
Interior Yards (Between Building and Interior Streets)	15’	Not applicable
Distance from Parking Area	10’	None
Distance between Buildings	40’	Not applicable
Impervious Surface	70% Max.	80%
Height – Principal Buildings	40’ Max.	35’
Height – Accessory Buildings	25’ Max.	Not applicable

Off-Street Parking. Light industrial uses must provide one (1) space for every 750 square feet of gross floor area plus one (1) space for every employee on the shift of greatest employment.²² The addendum contains the relevant portions of the zoning ordinance that detail the parking requirements for the remaining uses permitted in the LIB – Light Industrial/Business Park district.

Off-Street Loading. Every building or land use consisting of over 5,000 square feet of gross floor area designed or used for commercial or industrial uses shall have the following

²¹ Zoning Ordinance Section 904.

²² Zoning Ordinance Section 1303.

loading space(s).²³

<u>OFF-STREET LOADING REQUIREMENTS</u>	
<u>Total Gross Floor Area</u>	<u>Required Off-Street Loading Spaces</u>
Up to 15,000 square feet	1 space
15,000 square feet to 50,000 square feet	2 spaces
50,000 to 100,000 square feet	3 spaces
Each additional 100,000 square feet	1 additional space

Signs. Wall signs, awning signs, freestanding signs, and ground signs are permitted²⁴ in the LIB zoning district. The addendum contains the relevant provisions of the zoning ordinance that enumerate the sign regulations.

Buffer Zones. In any area where a new building or an addition to an existing building is proposed, a buffer shall be provided at the boundary line with all residential districts. The buffer shall be not less than 40 feet wide at the proposed building or addition as measured from the district boundary line or from the nearest street line where the street serves as the district boundary line. Buffers may be part of side or rear yards. Buffer area requirements shall not be applicable to existing structures or to any change in use relating to an existing structure.²⁵

Visual Screening. A planted visual screen or privacy fence shall be provided and continually maintained where a principal new building or addition is proposed. Planted visual screens shall be provided along property lines with any residential district.²⁶

Landscaping. Landscaping is required where a principal new building or addition to a principal existing building is proposed.²⁷ The landscaping requirements do not apply to existing structures or uses, or to any changes in use relating to an existing structure.²⁸ When required by new construction, properties in the LIB district must have:

- One (1) tree or two (2) shrubs placed in ground or in planters every 15 feet in the front of and at one (1) side of the building; and
- A landscaped strip with grass or other ground cover not less than six (6) feet wide in front of and at one (1) side of the building.²⁹

Special Regulations. In the LIB district, “no products or items or portions thereof shall be processed, assembled or packaged which shall exceed 30 cubic feet.”³⁰

²³ Zoning Ordinance Section 1306.

²⁴ Zoning Ordinance Section 1405(4).

²⁵ Zoning Ordinance Section 905(1).

²⁶ Zoning Ordinance Section 905(2).

²⁷ Zoning Ordinance Section 905(3).

²⁸ Zoning Ordinance Section 905(3).

²⁹ Zoning Ordinance Section 1517(3)(a).

³⁰ Zoning Ordinance Section 905(9).

Deed Restrictions None indicated.

Other Private Restrictions None indicated.

Conclusion. Utilization of the subject for light industrial purposes with related office facilities appears to be legal under the code. Among other things, the enactment of Folcroft Borough's revised zoning ordinance in 2006 changed the minimum lot size and setback requirements. On the date of valuation, the subject lot violated the applicable minimum lot area, setback, and impervious surface requirements.

The current Folcroft Borough Zoning Ordinance states that all structures, lots, uses of structures, and uses of land that existed prior to the effective date of the ordinance and do not conform to the regulations of the district are nonconforming and may be continued so long as they remain otherwise lawful, including subsequent sales.³¹ A nonconforming lot held in single and separate ownership that does not contain the required minimum area or width as of the effective date of the zoning ordinance may be used for the construction, alteration or reconstruction of a building if the construction, alteration, reconstruction or other use is in compliance with the current use, yard and setback provisions.³² A nonconforming structure destroyed by fire or other cause to less than 75% of the current value may be reconstructed so long as the reconstruction occurs within 12 months and the new structure does not exceed the height, area and volume of the destroyed building.

The initial subdivision of the subject lot in the 1960s predates the enactment of the current zoning ordinance in 2006 by nearly 40 years. The dates of construction of the various sections of the subject improvements indicate that the entire building existed prior to Folcroft Borough's current zoning ordinance. Therefore, it appears that the lot and existing improvements predate the current zoning ordinance, and any associated nonconformities may legally continue.

The current zoning ordinance explicitly allows parties to buy and sell the existing nonconforming land and improvements without curing the nonconformities so long as all other aspects remain legal. The current or future owner of the subject may rebuild the nonconforming structure if 75% or less of the structure's value is destroyed. Thus, the subject's existing nonconformities do not appear to constrain an owner's ability to sell the property in its current form or reconstruct the property to its existing dimensions if damaged.

The current zoning ordinance also does not prevent the development of the subject land, if vacant. One may develop the subject land even though it does not contain the minimum lot area if the proposed development complies with the applicable use, yard and setback provisions. Therefore, one may consider the highest and best use of the subject land if vacant even though that lot does not contain the minimum two (2) acre land area.

³¹ Zoning Ordinance Section 1801.

³² Zoning Ordinance Section 1809.

Real Estate Taxes and Assessment

Delaware County identifies the subject as Folio Number 20-00-01135-02 and Tax Map Number 20-06-072-000.

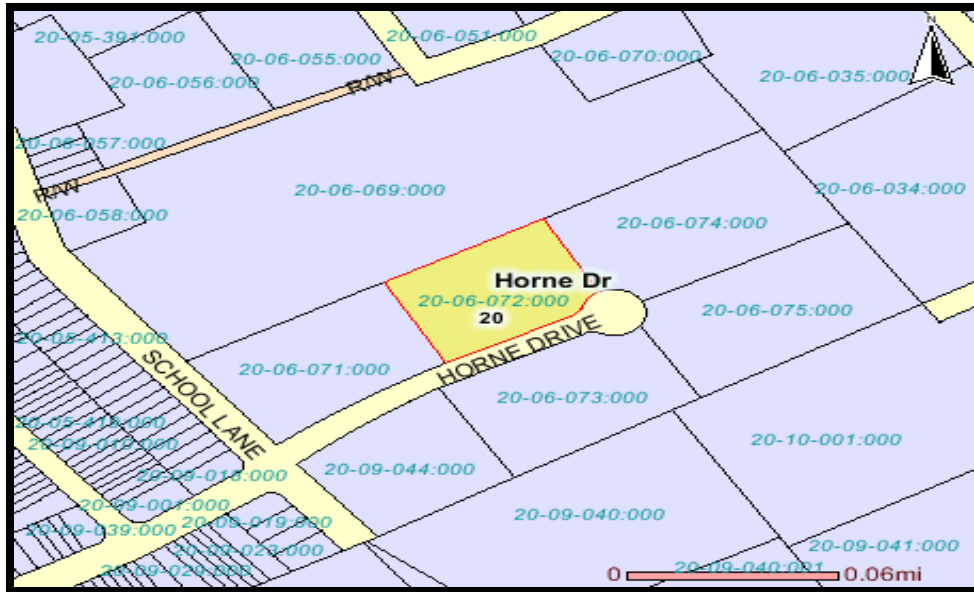
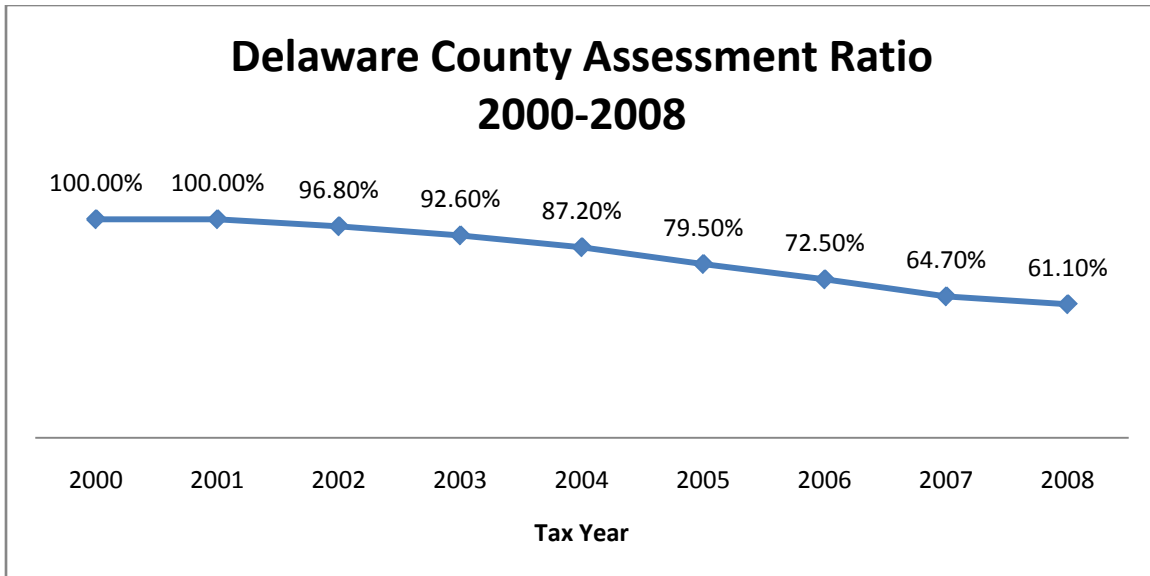
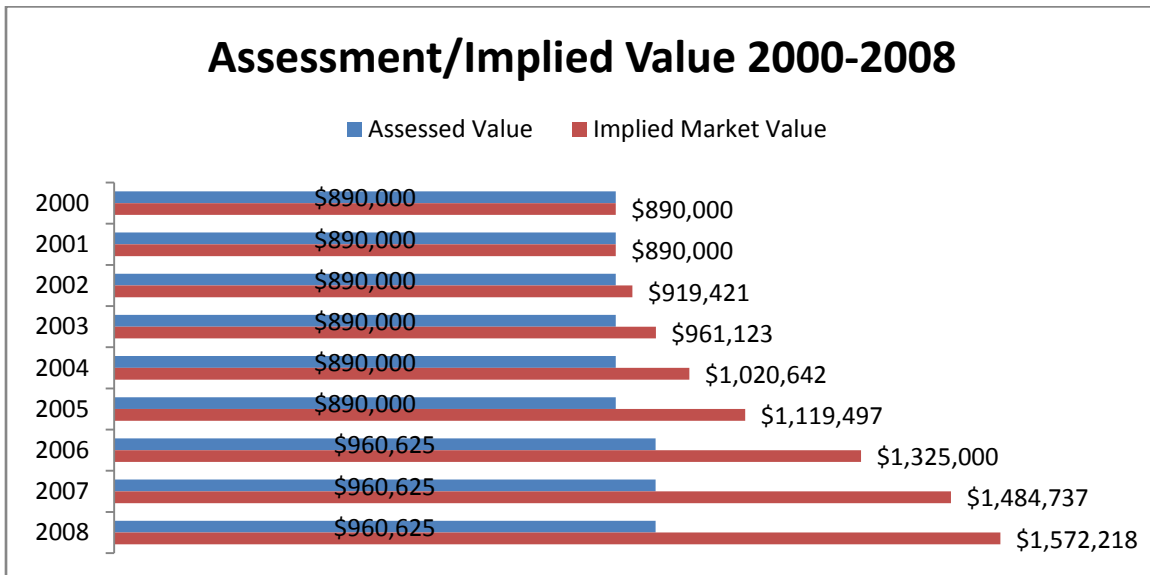


Figure 22 - Tax Map

Delaware County reassessed all taxable real estate to 100% of the market value as of January 1, 2000. In the absence of a countywide reassessment, the Commonwealth of Pennsylvania's State Tax Equalization Board (STEB) establishes the annual ratio of assessed value to market value in each county based on an analysis of real estate transactions. Delaware County's STEB ratio fell during every tax year from 2001 to 2008. By tax year 2008, Delaware County's ratio of assessments to market value dropped to 61.10%. The consistent decline in Delaware County's assessment ratio indicates that property values, on average, rose each year. The following table summarizes Delaware County's ratio of assessments to market value from 2000 to 2008.

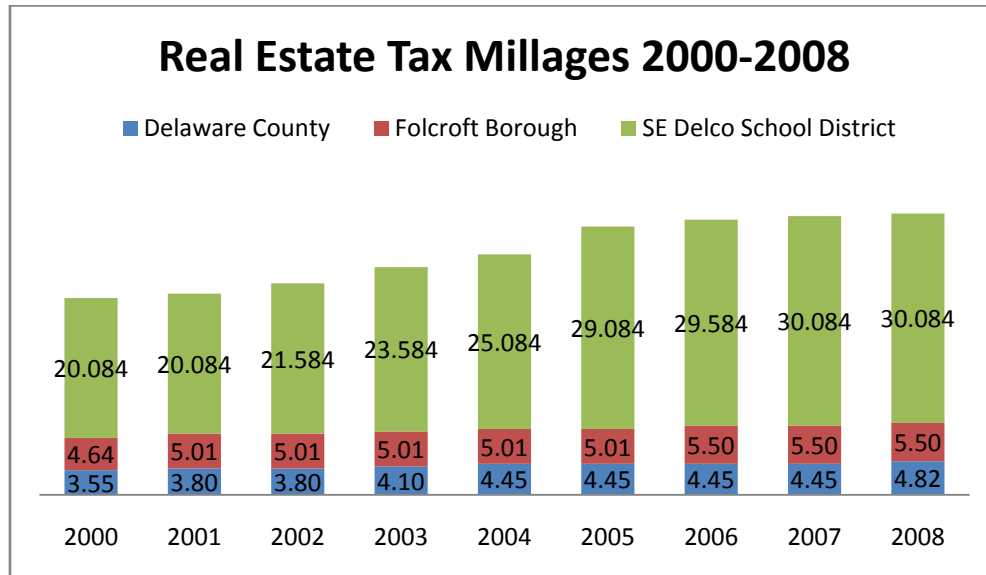


The subject's total assessment and market value as of January 1, 2000 was \$890,000. The assessment remained unchanged until the 2006 tax year when Southeast Delco School District's appeal successfully increased the assessment to \$960,625. Based on the annual decline in the ratio and the increase in the assessment that became effective in 2006, the market value implied by the assessment grew from \$890,000 in 2000 to \$1,572,218 in 2008 as summarized in the following chart.



Three (3) taxing authorities levy real estate taxes on the subject property, Delaware County, Folcroft Borough, and Southeast Delco School District. The total real estate tax rate is the sum of the millage for each of the three taxing authorities. The real estate tax years for Delaware County and Folcroft Borough are based on the calendar year ending December 31. Southeast Delco School District issues real estate tax bills for a fiscal year starting July 1 and

ending June 30. The following chart summarizes the real estate tax millage from 2000 to 2008 for each of the applicable taxing authorities.



The real estate tax rate for all properties in Folcroft Borough grew from 2.8274% in tax year 2000 to 4.0404% for tax year 2008, an increase of 42.90%. Based on the current 4.0404% tax rate, annual real estate taxes are \$38,813 for the subject property. Taking into account the increase in the real estate tax rate and an increase in assessment, annual real estate taxes have increased 54.24% over the amount paid in 2000 as summarized below.



Although annual real estate taxes for the subject property have grown by more than half since 2000, the subject assessment implies a market value of \$1,572,218 which is less than the value estimate developed later in this report. Further analysis confirms that the subject's assessment is at the lower end of the range of the six properties situated on Horne Drive.

THE SUBJECT PROPERTY

Displayed below is pertinent information on the properties on Horne Drive. The properties are similar to the subject in age, utility, gross building area, land area, and finish.

<u>TAX COMPARABLES</u>					
<u>Address</u>	<u>GBA</u>	<u>Assessment</u>	<u>Tax Rate</u>	<u>Tax Liability</u>	<u>Taxes/SF</u>
1 Horne Drive	32,700 SF	\$1,007,980	4.0404%	\$40,726.42	\$1.25
2 Horne Drive	32,000 SF	\$669,000	4.0404%	\$27,030.28	\$0.84
3 Horne Drive	32,000 SF	\$779,375	4.0404%	\$31,489.87	\$0.98
4 Horne Drive	20,960 SF	\$714,730	4.0404%	\$28,877.95	\$1.37
6 Horne Drive	24,000 SF	\$1,202,560	4.0404%	\$48,588.23	\$2.02
Mean	28,332 SF	\$874,729		\$35,342.55	\$1.30
Median	32,000 SF	\$779,375		\$31,489.87	\$1.25
Mode	32,000 SF	N/A		N/A	N/A
5 Horne Drive (Subject)	36,940 SF	\$960,625	4.0404%	\$38,813.09	\$1.05

Based on an analysis of similar properties, the subject appears to be assessed below the range of the properties surveyed. The tax liability per square foot of gross building area for the comparable properties ranges from \$0.84 to \$2.02. The subject's \$1.05 tax liability per square foot of gross building area is 23.81% less than the average of the comparables. Considering this information, an appeal of the subject assessment does not appear to be warranted.

One must also consider whether the current owner can expect the current real estate taxes to increase. Although the taxing authorities arguably have the right to appeal a property's assessment and seek an increase, such an affirmative appeal is not likely absent a sale of the property. Even with a sale, there is no mechanism to automatically mark the assessment to market. Absent a change in assessment, annual real estate taxes may still increase if any of the taxing authorities increase their respective tax rate. Subject to certain legal constraints, the three taxing authorities may increase their individual real estate tax rates based on their respective budgets.

The overall real estate tax rate for all properties in Folcroft Borough grew from 2.8274% in tax year 2000 to 4.0404% for tax year 2008, an increase of 42.90% or 5.36% per year. It is reasonable to expect that real estate taxes will increase in the future by five percent per year on average, if only based on increasing revenue needs for the taxing authorities. However, this appraisal analyzes the subject on a net basis whereby the tenant is responsible for all real estate taxes. The tenant would be responsible for 100% of all real estate tax increases, and the valuation of the subject by the Income Approach would remain unchanged by the projected tax increases.

Delaware Valley Overview

The following table summarizes data from CoStar for industrial/flex space in the nine county Delaware Valley region as defined by the DVRPC. The Delaware Valley includes the Pennsylvania counties of Bucks, Chester, Delaware, Montgomery, and Philadelphia; and the New Jersey counties of Burlington, Camden, Gloucester, and Mercer. Supply and demand indicators include inventory, absorption, vacancy, deliveries, projects under construction, and average rental rates per square foot.

<u>NINE COUNTY INDUSTRIAL/FLEX MARKET</u> <u>4th QUARTER 2000 TO 2ND QUARTER 2008</u>						
Period	Total SF	% Vacant	SF Absorbed	SF Delivered	SF Under Const	Avg Rent/SF
2000 4Q	469,205,903	8.6%	940,555	159,500	6,595,715	\$4.32/nnn
2001 4Q	475,430,281	9.6%	(2,279,534)	1,438,670	3,923,366	\$4.35/nnn
2002 4Q	478,722,315	10.5%	(1,377,033)	498,910	2,540,405	\$4.38/nnn
2003 4Q	480,183,374	10.8%	(3,834,193)	259,964	2,153,777	\$5.19/nnn
2004 4Q	480,942,912	11.3%	(491,217)	329,000	3,904,187	\$5.12/nnn
2005 4Q	483,103,814	10.5%	635,728	763,936	3,435,313	\$5.24/nnn
2006 1Q	483,264,467	10.2%	1,486,876	607,909	3,878,294	\$5.19/nnn
2006 2Q	483,574,786	9.9%	1,519,317	1,054,188	3,829,605	\$5.25/nnn
2006 3Q	484,565,977	9.6%	2,364,272	1,003,191	2,857,367	\$5.24/nnn
2006 4Q	485,361,038	9.1%	3,303,368	842,130	2,330,050	\$5.26/nnn
2007 1Q	485,486,712	9.4%	(1,200,538)	1,250,378	3,034,840	\$5.31/nnn
2007 2Q	486,308,456	9.3%	1,065,935	902,091	3,421,142	\$5.29/nnn
2007 3Q	486,369,189	8.9%	1,829,661	106,333	3,638,589	\$5.38/nnn
2007 4Q	488,068,406	8.9%	1,978,952	1,719,500	2,200,395	\$5.43/nnn
2008 1Q	488,448,613	8.8%	657,815	1,094,100	2,265,891	\$5.51/nnn
2008 2Q	489,396,182	9.5%	(2,398,059)	1,048,658	1,626,941	\$5.50/nnn

The Delaware Valley contained 489,396,182 square feet of industrial/flex space in the second quarter of 2008 increasing at a 0.56% compound annual rate over the seven and one-half years between the end of 2004 and the date of valuation. The overall vacancy rate was 9.5%, an increase of almost a full percentage point over the previous quarter, but still less than the 11.3% high experienced at the end of 2004. The market absorbed negative 2,398,059 square feet on a net basis, the largest contraction of demand since 2003. New construction delivered 1,048,658 square feet of additional space and 1,626,941 square feet were still under construction. Annual rental rates averaged \$5.50 per square foot on a net basis, growing at 3.64% per year over fourth quarter 2000.

The following table contains my forecast of the Delaware Valley's industrial/flex inventory and vacancy rate utilizing CoStar data. Based on the previous ten year average rate of deliveries and the previous ten year average rate of net absorption, the Delaware Valley

industrial/flex market will have an inventory of 507,182,780 square feet by the end of 2013, a 0.65% annual growth rate. By the fourth quarter of 2013, the region will have a vacancy rate of 11.6 percent.

<u>NINE COUNTY INDUSTRIAL/FLEX MARKET</u> <u>FORECAST 2009 TO 2013</u>				
Period	Total SF	SF Delivered	SF Absorbed	Vacant
2008 2Q	489,396,182	1,048,658	(2,398,059)	9.5%
2009 4Q	492,550,124	914,541	426,031	10.4%
2010 4Q	496,208,288	914,541	426,031	10.7%
2011 4Q	499,866,452	914,541	426,031	11.0%
2012 4Q	503,524,616	914,541	426,031	11.3%
2013 4Q	507,182,780	914,541	426,031	11.6%

Delaware County Overview

The subject competes with industrial/flex buildings in the Delaware County market. The following table summarizes data from CoStar for industrial/flex space in Delaware County.

<u>DELAWARE COUNTY INDUSTRIAL/FLEX MARKET</u> <u>4th QUARTER 2000 TO 2ND QUARTER 2008</u>						
Period	Total SF	% Vacant	SF Absorbed	SF Delivered	SF Under Const	Avg Rent/SF
2000 4Q	32,090,662	8.1%	(29,410)	0	94,000	\$5.01/nnn
2001 4Q	32,142,662	7.6%	(193,255)	0	229,100	\$6.21/nnn
2002 4Q	32,590,085	8.3%	(136,944)	121,023	58,400	\$8.57/nnn
2003 4Q	32,600,885	8.8%	(368,335)	0	91,500	\$6.88/nnn
2004 4Q	32,646,105	10.6%	(424,065)	70,000	79,118	\$5.75/nnn
2005 4Q	32,725,223	10.4%	47,730	20,500	192,410	\$5.75/nnn
2006 1Q	32,755,633	9.6%	306,816	30,410	205,750	\$5.80/nnn
2006 2Q	32,782,633	9.4%	76,125	27,000	210,750	\$5.86/nnn
2006 3Q	32,882,633	8.6%	353,635	100,000	110,750	\$5.88/nnn
2006 4Q	32,961,383	7.9%	298,770	78,750	75,280	\$5.84/nnn
2007 1Q	32,967,811	7.4%	167,208	32,000	43,280	\$6.40/nnn
2007 2Q	33,011,091	7.5%	17,000	43,280	115,620	\$6.61/nnn
2007 3Q	32,984,091	6.5%	290,221	0	151,312	\$6.50/nnn
2007 4Q	32,980,902	6.0%	166,207	0	214,672	\$6.46/nnn
2008 1Q	33,016,594	7.5%	(449,132)	82,592	243,980	\$6.58/nnn
2008 2Q	33,016,594	8.7%	(401,417)	0	243,980	\$6.62/nnn

The Delaware County industrial/flex market contained 33,016,594 square feet of industrial/flex space in the second quarter of 2008 increasing at a 0.38% compound annual rate during the seven and one-half years since fourth quarter 2000. The overall vacancy rate was 8.7%, an increase of more than a full percentage point over the previous quarter, but still less than the 10.6% high experienced at the end of 2004. The market absorbed negative 401,417 square feet on a net basis, the second consecutive quarter of negative absorption. There were no new deliveries and 243,980 square feet were still under construction. Annual rental rates averaged \$6.62 per square foot on a net basis, growing at 4.28% per year over fourth quarter 2000.

The following table contains my forecast of Delaware County's industrial/flex inventory and vacancy rate utilizing CoStar data. Based on the previous ten year average rate of deliveries and the previous ten year average rate of net absorption, the Delaware County industrial/flex market will have an inventory of 34,160,486 square feet by the end of 2013, a 0.62% annual growth rate. By the fourth quarter of 2013, Delaware County will have a vacancy rate of 10.7 percent.

<u>DELAWARE COUNTY INDUSTRIAL/FLEX MARKET FORECAST 2009 TO 2013</u>				
Period	Total SF	SF Delivered	SF Absorbed	Vacant
2008 2Q	33,016,594	0	(401,417)	8.7%
2009 4Q	33,399,942	47,534	24,155	9.8%
2010 4Q	33,590,078	47,534	24,155	10.0%
2011 4Q	33,780,214	47,534	24,155	10.2%
2012 4Q	33,970,350	47,534	24,155	10.5%
2013 4Q	34,160,486	47,534	24,155	10.7%

Three Mile Radius of the Subject

The subject property is located within two miles of the Philadelphia International Airport and the Boeing assembly plant, two of the largest concentrations of industrial activity in the immediate vicinity. It is therefore appropriate to analyze the market for industrial/flex facilities with similar locational characteristics. A three mile radius around the subject, including a portion of southeastern Delaware County and a portion of southwestern Philadelphia, contains industrial/flex buildings that may be drawn by the opportunity to be in close proximity to these hubs of activity. The table on the following page summarizes data from CoStar for industrial/flex space within a three mile radius of the subject property.

The industrial/flex market within three miles of the subject contained 13,362,189 square feet in the second quarter of 2008 increasing at a 1.50% compound annual rate over the seven and one-half years since the end of 2000. The overall vacancy rate was 10.8%, down by just over one-half of a percentage from the previous quarter. The market absorbed 80,526 square feet on a net basis, a reversal of the prior two quarters. There were no new deliveries and 55,100 square feet were still under construction. Annual rental rates averaged \$5.99 per square foot on a net basis, growing at 5.46% per year over fourth quarter 2000.

<u>THREE MILE RADIUS INDUSTRIAL/FLEX MARKET</u> <u>4th QUARTER 2000 TO 2ND QUARTER 2008</u>						
Period	Total SF	% Vacant	SF Absorbed	SF Delivered	SF Under Const	Avg Rent/SF
2000 4Q	11,946,469	7.3%	183,225	0	0	\$4.25/nnn
2001 4Q	11,946,469	8.2%	130,052	0	54,600	\$4.88/nnn
2002 4Q	12,031,069	8.6%	(87,983)	0	0	\$4.55/nnn
2003 4Q	11,983,469	9.6%	(132,735)	0	0	\$6.20/nnn
2004 4Q	12,033,469	12.8%	(82,208)	50,000	1,181,818	\$5.73/nnn
2005 4Q	13,215,287	10.8%	83,039	0	100,000	\$6.76/nnn
2006 1Q	13,215,287	10.6%	19,584	0	100,000	\$5.74/nnn
2006 2Q	13,215,287	10.2%	52,748	0	100,000	\$5.78/nnn
2006 3Q	13,315,287	9.1%	245,617	100,000	0	\$5.59/nnn
2006 4Q	13,315,287	7.9%	156,370	0	0	\$5.70/nnn
2007 1Q	13,315,287	7.9%	(585)	0	0	\$6.18/nnn
2007 2Q	13,315,287	8.9%	(137,539)	0	44,300	\$6.24/nnn
2007 3Q	13,315,287	7.8%	149,319	0	46,900	\$6.24/nnn
2007 4Q	13,315,287	9.7%	(258,596)	0	46,900	\$6.22/nnn
2008 1Q	13,362,189	11.4%	(216,649)	46,900	0	\$5.95/nnn
2008 2Q	13,362,189	10.8%	80,526	0	55,100	\$5.99/nnn

The 55,100 square foot facility under construction is an equipment maintenance plant for US Airways. The new facility is to be located at 8000 Essington Avenue in Southwestern Philadelphia. This facility is being built on a turnkey basis for US Airways to its specifications.

Another proposed development is planned adjacent to the subject within the Folcroft West Industrial Park. On July 17, 2008, Delaware County recommended approval for Henderson Columbia to prepare a final land development plan for a 76,800 square foot warehouse for Forward Air on 7.6 acres immediately north of the subject property. The proposed home of Forward Air represents the development of the last vacant parcel of land in the Folcroft West Industrial Park.

A significant recent delivery occurred in the Folcroft West Industrial Park in the first quarter of 2008. A new 44,300 square foot distribution facility was built at the rear of 519 Kaiser Drive on a 10 acre site. The building offers 12 exterior loading docks, four (4) drive-in doors, and ceiling clearances ranging from 22 feet to 24 feet. The average asking rent per square foot is \$8.50.

A potential future expansion of the Philadelphia International Airport may affect the market for industrial/flex properties in the subject's vicinity. The airport and the FAA submitted a draft environmental impact statement for public comment to evaluate the installation of an additional runway to increase the capacity for takeoffs and landings. The additional runway would be on the current site of a UPS cargo facility. One option for the site of the relocated UPS facility is a 140 acre tract of industrially zoned land adjacent to the airport in Tinicum Township, Delaware County.

The 140 acre tract is the largest undeveloped parcel of industrially zoned land in an area that has few tracts of land that are available for development. If the airport acquires the tract and expands, the already high barriers to entry in the immediate vicinity would become even higher. The airport, the John Heinz Wildlife Refuge, and the configuration of Interstate 95 limit development adjacent to the airport and force users of industrial/flex space to existing facilities, such as the subject. While the expansion of the airport is still in the preliminary phase, the potential loss of the last undeveloped tract adjacent to the airport bodes well for the market for existing industrial/flex facilities in the subject vicinity.

<u>THREE MILE RADIUS INDUSTRIAL/FLEX MARKET</u>				
<u>FORECAST 2009 TO 2013</u>				
Period	Total SF	SF Delivered	SF Absorbed	Vacant
2008 2Q	13,362,189	0	80,526	10.8%
2009 4Q	13,438,507	38,160	39,362	7.9%
2010 4Q	13,591,147	38,160	39,362	7.7%
2011 4Q	13,743,787	38,160	39,362	7.6%
2012 4Q	13,896,427	38,160	39,362	7.5%
2013 4Q	14,049,067	38,160	39,362	7.4%

The previous table contains my forecast of the industrial/flex inventory and vacancy rate for the three mile radius surrounding the subject utilizing CoStar data. Based on the previous ten year average rate of deliveries and the previous ten year average rate of net absorption, the industrial/flex market in the three mile radius will have an inventory of 14,049,067 square feet by the end of 2013, a 0.92% annual growth rate. By the fourth quarter of 2013, the vacancy rate will be 7.4% percent.

Peer Group Analysis

Primary competitors for the subject consist of industrial/flex buildings in the Delaware County market containing 15,000 square feet to 60,000 square feet. The table on the following page summarizes data from CoStar for these facilities.

<u>COMPETITIVE PROPERTIES 15,000 SF TO 60,000 SF</u> <u>4th QUARTER 2000 TO 2ND QUARTER 2008</u>						
Period	Total SF	% Vacant	SF Absorbed	SF Delivered	SF Under Const	Avg Rent/SF
2000 4Q	9,748,663	9.2%	101,292	0	94,000	\$5.55/nnn
2001 4Q	9,800,663	9.4%	(26,882)	0	216,600	\$6.80/nnn
2002 4Q	10,065,763	9.6%	62,315	20,000	58,400	\$6.57/nnn
2003 4Q	10,124,163	10.5%	(46,283)	0	87,500	\$7.34/nnn
2004 4Q	10,261,663	12.0%	(108,442)	70,000	77,318	\$6.52/nnn
2005 4Q	10,338,981	9.8%	70,503	20,500	65,410	\$6.65/nnn
2006 1Q	10,369,391	10.8%	(75,999)	30,410	78,750	\$7.19/nnn
2006 2Q	10,369,391	10.2%	58,784	0	110,750	\$7.23/nnn
2006 3Q	10,369,391	8.6%	169,261	0	110,750	\$6.98/nnn
2006 4Q	10,448,141	9.5%	(23,397)	78,750	75,280	\$6.85/nnn
2007 1Q	10,480,141	9.0%	76,908	32,000	43,280	\$7.48/nnn
2007 2Q	10,523,421	9.3%	15,263	43,280	102,320	\$7.66/nnn
2007 3Q	10,523,421	8.0%	136,824	0	123,120	\$7.85/nnn
2007 4Q	10,523,421	7.7%	25,071	0	123,120	\$7.71/nnn
2008 1Q	10,544,221	9.2%	(136,666)	65,100	58,020	\$7.82/nnn
2008 2Q	10,544,221	8.9%	27,092	0	58,020	\$7.88/nnn

The peer group contained 10,544,221 square feet of industrial/flex space in the second quarter of 2008 increasing at a 1.05% compound annual rate during the seven and one-half years since year end 2000. The overall vacancy rate was 8.9%, a slight decrease from the previous quarter. The market absorbed 27,092 square feet on a net basis, a reversal of the prior quarter's negative absorption. There were no new deliveries and 243,980 square feet were still under construction. Annual rental rates averaged \$7.88 per square foot on a net basis, growing at 5.60% per year over fourth quarter 2000.

The following table contains my forecast of the industrial/flex inventory and vacancy rate within the competitive group of properties. Based on the previous ten year average rate of deliveries and the previous ten year average rate of net absorption, the competitive set will have an inventory of 11,211,651 square feet by the end of 2013, a 1.12% annual growth rate. By the fourth quarter of 2013, competitive properties will have a vacancy rate of 10.4 percent.

<u>COMPETITIVE PROPERTIES 15,000 SF TO 60,000 SF</u> <u>FORECAST 2009 TO 2013</u>				
Period	Total SF	SF Delivered	SF Absorbed	Vacant
2008 2Q	10,544,221	0	27,092	8.7%
2009 4Q	10,760,531	28,195	23,382	10.2%
2010 4Q	10,873,311	28,195	23,382	10.2%
2011 4Q	10,986,091	28,195	23,382	10.3%
2012 4Q	11,098,871	28,195	23,382	10.4%
2013 4Q	11,211,651	28,195	23,382	10.4%

Industrial Market Outlook and Conclusions

The industrial/flex market vacancy rate for the second quarter of 2008 ranged from 8.7% for Delaware County to 10.8% for the three mile radius around the subject. Based on my forecast, I project that the vacancy rate by year end 2013 will range between 7.4% for the three mile radius around the subject to 11.6% for the Delaware Valley as a whole. As of the date of valuation, rents per square foot per year on a triple net basis ranged from \$5.50 for the Delaware Valley as a whole to \$7.88 for the subject peer group. The subject peer group led the way with an average rent growth of 5.60% per year.

<u>MARKET RENT AND VACANCY SUMMARY</u>				
Market Segment	Vacancy % 2008 2Q	Vacancy % 2013 4Q	Rent \$/SF/Yr 2008 2Q	Rent Growth %/Yr '00 4Q-'08 2Q
Delaware Valley	9.5%	11.6%	\$5.50/nnn	3.64%/Yr
Delaware County	8.7%	10.7%	\$6.62/nnn	4.28%/Yr
3 Mile Radius	10.8%	7.4%	\$5.99/nnn	5.46%/Yr
Peer Group	8.9%	10.4%	\$7.88/nnn	5.60%/Yr

USPAP requires an appraiser to develop an opinion of the highest and best use of the real estate when the definition of value is market value.³³ The highest and best use is “the reasonably probable and legal use of vacant land or an improved property that is physically possible, appropriately supported, and financially feasible and that results in the highest value.”³⁴

Highest and Best Use If Vacant

According to *The Appraisal of Real Estate*, one must apply four tests in the following order to determine the highest and best use:

1. Legally permissible;
2. Physically possible;
3. Financially feasible; and
4. Maximally productive.³⁵

The tests of legal permissibility and physical possibility can occur in either order but these two must occur before proceeding to the remaining tests.³⁶

Legal Permissibility. A legally permitted use is “a property use that is either currently allowed or most probably allowable under zoning codes, building codes, environmental regulations, and other applicable laws and regulations that govern land use restrictions.”³⁷ Based on my research, I am not aware of any private restrictions (deed restrictions, restrictive covenants, building association agreements, etc.) that limit the use the subject. Thus, the principal legal constraint on the utilization of the subject land is the Folcroft Borough zoning code. I do not believe that a zoning change would be possible since Folcroft Borough updated its zoning ordinance as recently as 2006. As previously discussed, the LIB zoning district permits office buildings, most light industrial uses, laboratories, electronic data processing centers, warehouses, as principal uses by right.

Physical Possibility. For a use to be physically possible, “the land must be able to accommodate the size and shape and of the ideal improvement.”³⁸ The subject land features both positive and negative characteristics that one must consider. Although the site has a slightly irregular shape, it has a uniform depth that allows some flexibility in the placement of improvements relative to vehicle parking and circulation areas. The site has almost 300 feet of frontage on a developed street that permits more than one access point. The land’s mildly sloping topography does not feature elevation changes that would increase construction costs. Storm water also appears to drain efficiently from the site

³³ USPAP Standards Rule 1-3(b).

³⁴ *The Appraisal of Real Estate*, 13th ed., 277-278.

³⁵ *The Appraisal of Real Estate*, 13th ed., 278-279.

³⁶ *The Appraisal of Real Estate*, 13th ed., 278.

³⁷ *The Dictionary of Real Estate Appraisal*, 4th ed., s.v. “Legal Permissibility.”

³⁸ *The Dictionary of Real Estate Appraisal*, 4th ed., s.v. “Physical Permissibility.”

The underlying soil is capable of supporting commercial and industrial development without extra support or piling. A flood zone is not present that could limit the site's developable area or utility. The subject land is situated in an industrial park less than one-half mile from the area's main commercial roadway. Finally, all public utilities serve the tract.

According to *Appraising Industrial Properties*, the typical land to building ratio for industrial properties is between 2.5 and 3.5.³⁹ Based on a land area of 1.58 acres or 68,825 square feet, an ideal industrial property would contain 19,600 square feet to 27,500 square feet. The Urban Land Institute's *Guide to Classifying Industrial Property* indicates light industrial buildings have an average building site coverage of 40% or less.⁴⁰ A building site coverage of 40% yields a 27,500 square foot building on the subject land.

The current zoning permits a maximum 70% site coverage. Based on a 70% limit on impervious surfaces, buildings and parking areas can occupy no more than 48,100 square feet of the 68,825 square feet of land area. If every square foot of building area requires one square foot of parking area, the current zoning would permit a building with 24,000 square feet. Accordingly, I estimate that the ideal improvements would consist of a one story light industrial building containing 20,000 square feet to 25,000 square feet.

Financial Feasibility. A financially feasible use has the ability "to generate sufficient income to support the use for which it was designed."⁴¹ The following table summarizes the feasibility of the subject. Based on my discussions with Mr. Trommelen, construction of the ideal industrial facility would be much less than the cost to reproduce the existing subject improvements.

This analysis is based on a 25,000 ideal industrial facility. The market rent, rent growth, and vacancy rate is based on an analysis of the subject's peer group in the Market Analysis section. The Income Approach discusses the operating expenses and capitalization rate development

³⁹ The Appraisal Institute, *Appraising Industrial Properties*, 29.

⁴⁰ The Urban Land Institute, *Guide to Classifying Industrial Property*, 2nd ed., 40.

⁴¹ *The Dictionary of Real Estate Appraisal*, 4th ed., s.v. "Financial Feasibility."

<u>FEASABILITY ANALYSIS</u>					
	Area	Units		Rate	Total
Reproduction Cost New	25,000	SF	@	\$73.00	\$1,825,000
Plus: Land Value	1.58	Acres	@	\$150,000	\$237,000
Total Reproduction Cost New	25,000	SF	@	\$82.06	\$2,062,000
<u>Calculation of Feasible Rent</u>					
Required NOI	\$2,051,500		@	9.07%	\$187,023
Plus: Operating Expenses	25,000	SF	@	\$1.76	\$44,000
Plus: Reserves	25,000	SF	@	\$0.25	\$6,250
Plus: Management			@	3.00%	\$5,611
Effective Income					\$242,884
Plus: Vacancy			@	10.00%	\$ 24,288
Potential Gross Income					267,173
Feasible Gross Rent (SF)	25,000	SF			\$ 10.69
Less: Operating Expenses					\$ 1.76
Feasible Net Rent					\$ 8.93
Market Net Rent (SF)					\$7.88
Difference					\$1.05
Growth Needed to Achieve Feasibility					13.29%
Annual Growth Rate of Rent					3.00%
Years Required to Meet Feasible Rent					4.43

Maximum Productivity. In order for a use to be maximally productive use, “the selected land use must yield the highest value of the possible uses.”⁴² Based on the foregoing feasibility analysis, I believe the most productive use of the site if vacant would be to hold until construction becomes feasible

After considering all factors, it is my opinion that the highest and best use of the subject land if vacant is to remain vacant until construction of the ideal improvements becomes financially feasible.

⁴² *The Dictionary of Real Estate Appraisal*, 4th ed., s.v. “Maximum Productivity.”

Highest and Best Use of the Subject as Improved

The subject consists of a one story and part two story light industrial building. The gross building area is 36,940 square feet, representing 56.16% of the site area. The ground floor area is 33,040 square feet, representing a site coverage ratio of 50.23%. The improvements represent an over improvement of the subject land based on current light industrial standards. The subject also has several functionally deficient characteristics, most notably the U-shaped configuration that impedes the movement of goods and personnel through the building.

It is my judgment that the market demand for the subject property remain steady in light of the lack of developable land in the immediate vicinity, the lack of market rents that make new construction feasible, and the subject's proximity to the Philadelphia International Airport and Interstate 95. As improved, it is my opinion that the highest and best use of the subject property is continued use as a single occupant light industrial facility in accordance with the underlying zoning and other land use controls. This program of development in my view supports the highest present land value, and represents the most likely and available use to which the subject property can be put.

Introduction

The Cost Approach provides a value indication by adding the value of the land to the depreciated cost of the improvements. The initial step in the Cost Approach is to estimate the market value of the land assumed to be vacant. The analysis of sales of reasonably similar land parcels provides empirical data on which observations and conclusions about the subject land can be made. The commonly accepted unit of comparison in the valuation of industrial land is the selling price per acre.

The sales selected for direct comparison to the subject contain some features that are not identical to the subject. Adjustments have been made leading to an indication of the price at which the subject land could be expected to sell. In this analysis, all relevant adjustment factors were considered, including:

1. Property rights conveyed.
2. Financing terms and/or the cash equivalency of the price attributable to the land.
3. Conditions of sale.
4. The effect of the passage of time on selling prices and upon the relative availability of competing properties.
5. Nature of surrounding development.
6. Physical features such as frontage, shape, depth, access, topography, availability of public utilities, etc.
7. Uses permitted by zoning and other property use controls.
8. Relative size.
9. Special considerations such as wetlands, tidal lands, steep slope considerations, etc.

Numerous sales of vacant land were investigated, and the sales considered to be the most significant transactions follow.

LAND SALE NO. 1
LOT #1-003 TOWNSHIP LINE ROAD (NEALY BOULEVARD)
TRAINER BOROUGH
DELAWARE COUNTY, PA

DATE OF SALE: January 3, 2007 IDENTIFICATION: 46-00-00485-56

DEED BOOK: 3995 PAGE: 4 CONSIDERATION: \$300,000

GRANTOR: Wu & Associates

GRANTEE: DDQ Holdings LLC

LAND AREA: 2.572 acres BUILDING AREA: None.

ZONING: I-1 Light Industrial District

USE AFTER SALE: Industrial development

LAND FEATURES: This irregularly shaped parcel has 124' frontage on the cul-de-sac terminus of Nealy Boulevard. Frontage of the tract is generally at street grade, and the topography of the tract is slightly sloping. Public water, sanitary sewer, storm sewer, electric, and gas lines were available for connection at the time of sale.

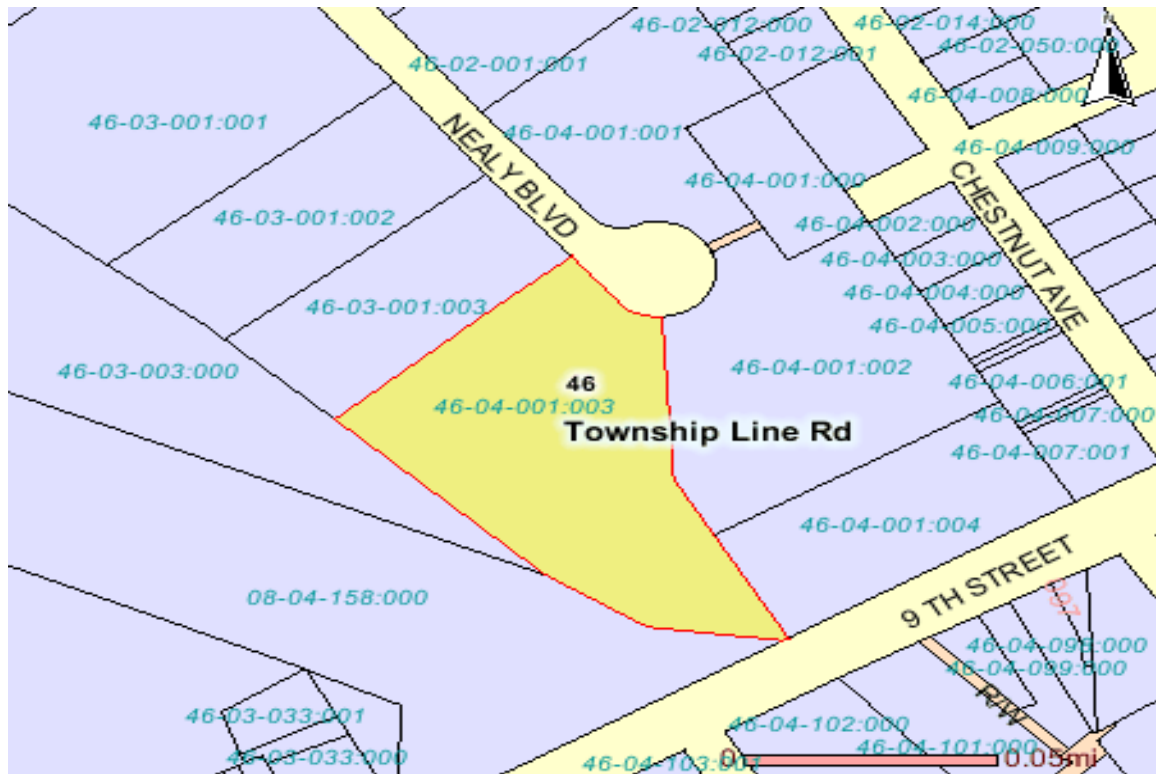
UNADJUSTED BASE PRICE: \$116,641 per acre.

INITIAL ADJUSTMENTS:	Property Rights	1.00 factor	
	Financing/Cash Equivalency	1.00 factor	
	Conditions of Sale	1.00 factor	
	Market Conditions	1.00 factor	
	Total Initial Adjustment:		1.00 factor

ADJUSTED BASE PRICE: \$116,641 per acre.

FINAL ADJUSTMENTS:	Location	+15% adjustment
	Relative Size	-5% adjustment
	Physical Features	+15% adjustment
	Utility Service	0% adjustment
	Zoning	0% adjustment
	Other Features	0% adjustment
	Total Final Adjustment:	+25% adjustment

ADJUSTED BASE PRICE: \$145,801 per acre.



LAND SALE NO. 1



LAND SALE NO. 2
8 GROCE AVENUE
DARBY TOWNSHIP
DELAWARE COUNTY, PA

DATE OF SALE: March 2, 2006 IDENTIFICATION: 15-00-01583-00 et al.

DEED BOOK: 3742 PAGE: 402 CONSIDERATION: \$473,000

GRANTOR: Donald Landolph

GRANTEE: Advanced Transit Mix, Inc.

LAND AREA: 2.51225 acres BUILDING AREA: 5,000 SF office.

ZONING: LI Light Industrial District

USE AFTER SALE: Concrete plant

LAND FEATURES: This irregularly shaped assemblage of 3 contiguous parcels has 180' frontage on Grobes Avenue and 461.92' frontage on Groce Avenue. Frontage of the tract is generally at street grade and the topography of the parcel is generally level. Public water, sanitary sewer, storm sewer, electric, and gas lines were available for connection at the time of sale.

UNADJUSTED BASE PRICE: \$188,277 per acre.

INITIAL ADJUSTMENTS:	Property Rights	1.00 factor
	Financing/Cash Equivalency	1.00 factor
	Conditions of Sale	1.00 factor
	Market Conditions	1.00 factor
	Total Initial Adjustment:	1.00 factor

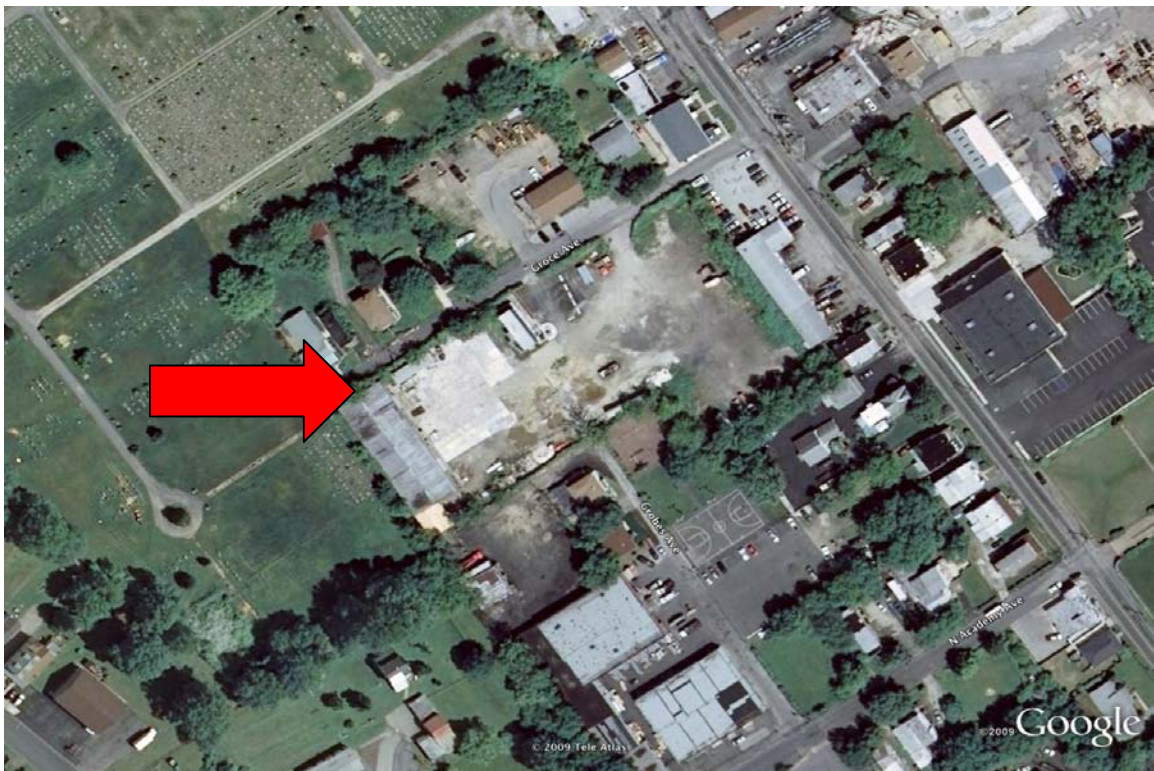
ADJUSTED BASE PRICE: \$188,277 per acre.

FINAL ADJUSTMENTS:	Location	-5% adjustment
	Relative Size	-5% adjustment
	Physical Features	-10% adjustment
	Utility Service	0% adjustment
	Zoning	0% adjustment
	Other Features	0% adjustment
	Total Final Adjustment:	-20% adjustment

ADJUSTED BASE PRICE: \$150,622 per acre.



LAND SALE NO. 2



LAND SALE NO. 3
BRIDGEWATER ROAD
BRIDGEWATER INDUSTRIAL PARK
CHESTER TOWNSHIP
DELAWARE COUNTY, PA

DATE OF SALE: February 7, 2006 IDENTIFICATION: 07-00-00270-20

DEED BOOK: 3727 PAGE: 1109 CONSIDERATION: \$1,200,000

GRANTOR: Murphy & Smith Developers, LLC

GRANTEE: TMFD, LLC

LAND AREA: 8.126 acres BUILDING AREA: None.

ZONING: I Industrial District

USE AFTER SALE: Industrial development

LAND FEATURES: This irregularly shaped interior parcel has 786.53' frontage on the south side of Bridgewater Road. Frontage of the tract is generally at or near street grade, and the topography is slightly sloping. Public water, sanitary sewer, storm sewer, electric, and gas lines were available for connection at the time of sale.

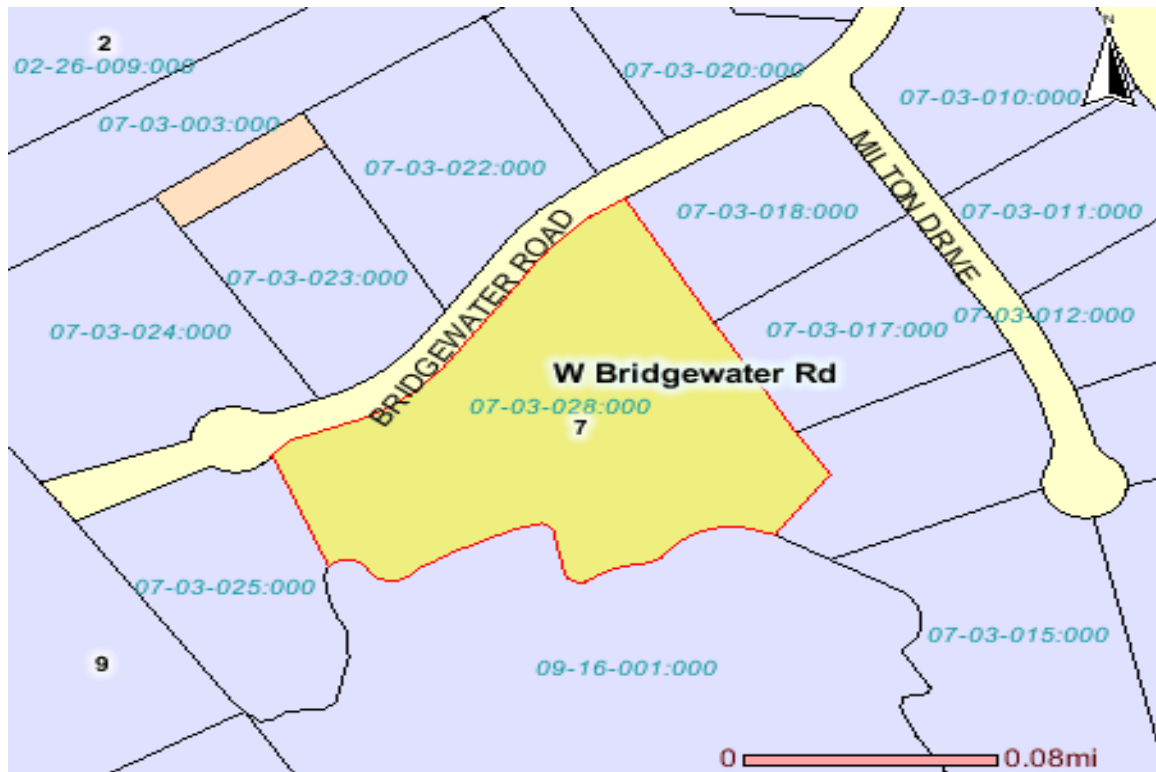
UNADJUSTED BASE PRICE: \$147,674 per acre.

INITIAL ADJUSTMENTS:	Property Rights	1.00 factor	
	Financing/Cash Equivalency	1.00 factor	
	Conditions of Sale	1.00 factor	
	Market Conditions	1.00 factor	
	Total Initial Adjustment:		1.00 factor

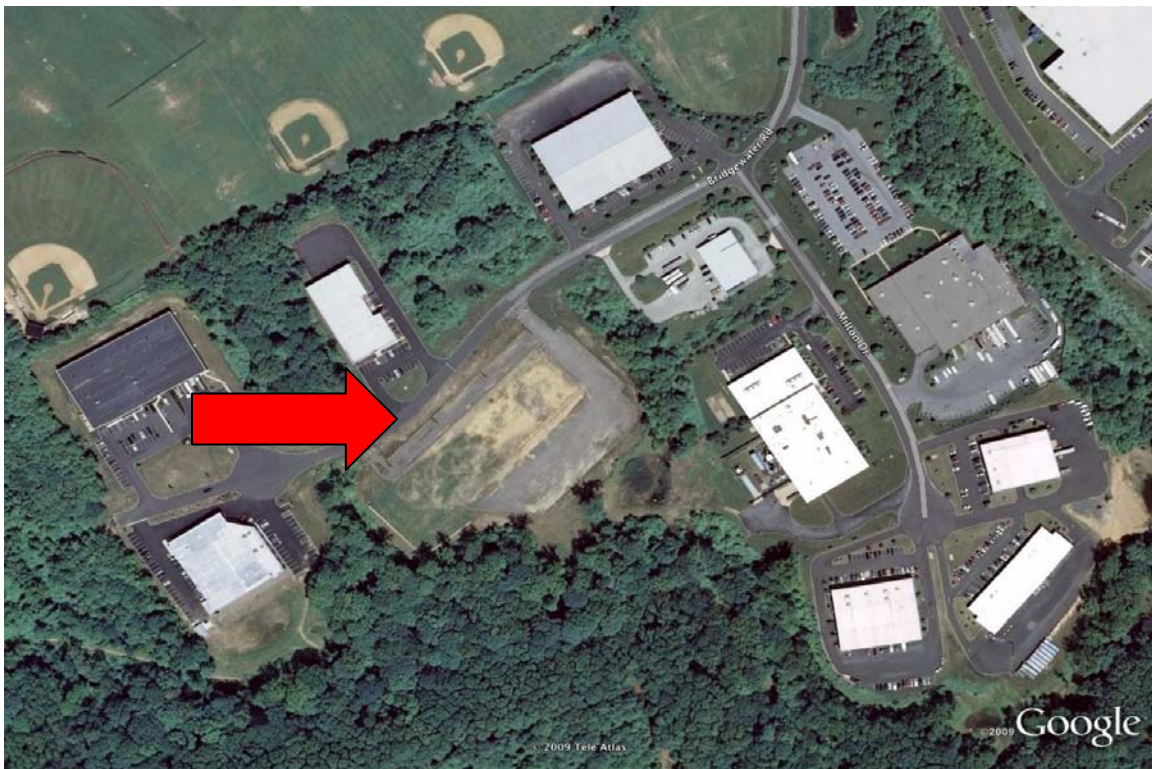
ADJUSTED BASE PRICE: \$147,674 per acre.

FINAL ADJUSTMENTS:	Location	-5% adjustment	
	Relative Size	-5% adjustment	
	Physical Features	+10% adjustment	
	Utility Service	0% adjustment	
	Zoning	0% adjustment	
	Other Features	0% adjustment	
	Total Final Adjustment:		0% adjustment

ADJUSTED BASE PRICE: \$147,674 per acre.



LAND SALE NO. 3



LAND SALE NO. 4
1354 HOOK ROAD
DARBY TOWNSHIP
DELAWARE COUNTY, PA

DATE OF SALE: February 6, 2006 IDENTIFICATION: 15-00-01308-01

DEED BOOK: 3726 PAGE: 1476 CONSIDERATION: \$1,175,000

GRANTOR: Joseph DiLuzio

GRANTEE: Keystone Storage Solutions, LLC

LAND AREA: 6.51517 acres BUILDING AREA: None.

ZONING: RA Residential District and RC Residential District subject to a variance

USE AFTER SALE: Self storage facility

LAND FEATURES: This irregularly shaped corner parcel has 365.70' frontage on the north side of Hook Road, 35.20' frontage on the east side of Greenhill Road, and 428.66' frontage on the south side of Linden Avenue. Frontage of the tract is generally at street grade, and the topography of the parcel falls from the front portion of the property to its center before rising gently to the rear portion of the property. Public water, sanitary sewer, storm sewer, electric, and gas lines were available for connection at the time of sale.

UNADJUSTED BASE PRICE: \$180,348 per acre.

INITIAL ADJUSTMENTS:	Property Rights	1.00 factor	
	Financing/Cash Equivalency	1.00 factor	
	Conditions of Sale	1.00 factor	
	Market Conditions	1.00 factor	
	Total Initial Adjustment:		1.00 factor

ADJUSTED BASE PRICE: \$180,348 per acre.

FINAL ADJUSTMENTS:	Location	-5% adjustment	
	Relative Size	-5% adjustment	
	Physical Features	-10% adjustment	
	Utility Service	0% adjustment	
	Zoning	+5% adjustment	
	Other Features	0% adjustment	
	Total Final Adjustment:		-15% adjustment

ADJUSTED BASE PRICE: \$153,296 per acre.



LAND SALE NO. 4



Estimate of Land Value

To account for the relevant differences that exist between the subject and each of the sales, appropriate adjustments have been made. In this analysis, adjustments have been made to each sale in two phases.

First, each sale has been adjusted as applicable for property rights conveyed, for financing and/or cash equivalency considerations, for any unusual conditions of sale affecting price, and for the effect of time, if any, on selling prices and upon the relative availability of competing properties. These adjustments are cumulative in nature, have been expressed on a factor basis, and have been multiplied by one another to arrive at an adjusted base price for each sale.

The second phase of the adjustment process is to deal with property characteristics that are different between the subject property and each sale. These adjustments are serial in nature, and have been summed.

Land Sale No. 1 is a 2.572 acre irregularly shaped parcel located at the terminus of a cul-de-sac on Nealy Boulevard, Trainer Borough. The subject has a superior location with better access to Interstate 95. Therefore, I adjusted the sale upward 15 percent. The sale has more land area than the subject so I adjusted the sale downward five percent. The subject has several physical characteristics that are superior to the sale, including a more regular shape, a more level topography, and more street frontage. Accordingly, I adjusted the sale upward 15% to account for the subject's superior physical characteristics. The sum of the adjustments is an upward 25% adjustment.

Land Sale No. 2 is a 2.51225 acre irregularly shaped assemblage that has frontage on two streets in Darby Township. The sale has a superior location. Therefore, I adjusted the sale downward five percent. The sale has more land area than the subject so I adjusted the sale downward five percent. The sale has more street frontage and frontage on two public streets. Accordingly, I adjusted the sale downward 10% to account for the sale's superior physical characteristics. The sum of the adjustments is a downward 20% adjustment.

Land Sale No. 3 is an 8.126 acre irregularly shaped tract with 786.53' frontage on Bridgewater Road in the Bridgewater Industrial Park. The sale has a superior location. Therefore, I adjusted the sale downward five percent. The sale has more land area than the subject so I adjusted the sale downward five percent. The sale has more street frontage, but the sloping topography impacts the sale's development potential. Accordingly, I adjusted the sale upward 10% to account for the sale's superior physical characteristics. The sum of the adjustments is a 0% adjustment.

Land Sale No. 4 is a 6.51517 acre irregularly shaped corner parcel with frontage on three streets in Darby Township. The sale has a superior location. Therefore, I adjusted the sale downward five percent. The sale has more land area than the subject so I adjusted the sale downward five percent. The sale has more street frontage and frontage on three public streets. Accordingly, I adjusted the sale downward 10% to account for the sale's superior physical

characteristics. The sale required a zoning variance to permit the development of a self storage facility. The subject zoning provides for a greater array of permitted land uses. Thus, I adjusted the sale upward five percent to account for the subject's preferable zoning. The sum of the adjustments is a downward 15% adjustment.

Subsequent to adjustment, unit selling prices of the sales range from \$145,801 per acre to \$153,296 per acre.

<u>TRANSACTION</u>	<u>ADJUSTED UNIT SELLING PRICE</u>
Land Sale No. 1	\$145,801 per acre
Land Sale No. 2	\$150,622 per acre
Land Sale No. 3	\$147,674 per acre
Land Sale No. 4	\$153,296 per acre

After taking into consideration all of the dissimilar features between the sales analyzed and the subject property, it is my opinion that the indicated value of the subject land by this approach is \$150,000 per acre. Multiplying the subject's 1.58 acres of land area by \$150,000 per acre reflects a value of \$237,000, which I rounded to \$235,000.

Estimate of Cost New

The next step in the Cost Approach is to estimate the cost new to rebuild the subject improvements; and the traditional techniques are either to estimate the cost to reproduce the improvements or to estimate the cost to replace the improvements.

Reproduction cost is the estimated cost to construct, as of the date of the appraisal, an exact duplicate or replica of the improvements being appraised using the same materials, construction standards, design layout, and quality of workmanship, and embodying all the subject deficiencies, super adequacies, and obsolescence.

Replacement cost, on the other hand, is the estimated cost to construct, as of the date of the appraisal, improvements with utility equivalent to the improvements being appraised using modern materials and current standards, design, and layout. The replacement cost technique traditionally requires that the structure be redesigned or reconfigured to correct some or all elements of functional obsolescence. In essence, this technique assumes hypothetical physical improvements which may be substantially different from the actual subject improvements.

Accordingly, I have developed a reproduction cost estimate. To estimate the cost new of the subject improvements, I have relied upon the reproduction cost estimate prepared by David A. Tromellen of Tromco Enterprises, LLC. Mr. Tromellen is of the opinion that the existing improvements could be constructed as of the appraisal date for \$5,070,500, or the equivalent of 36,940 square feet of gross building area at \$137.26 per square foot of building area. This estimate includes the cranes, all site improvements such as parking areas, landscaping, walkways, building appurtenances and features, etc.; and all costs have been adjusted to the date of valuation. The component cost new estimate is presented in the addendum.

Estimate of Depreciation

Accrued depreciation is the loss in utility, as of the appraisal date, experienced by the improvements in comparison with the utility they would have had as new improvements that represent the highest and best use of the site, that possess no elements of functional obsolescence, and that are not impacted by external obsolescence. Utility is an economic concept, and the amount of diminished utility measured represents the deduction from cost new that a prudent, informed purchaser would make in arriving at the price to be paid for the subject as of the appraisal date.

Depreciation is normally classified into the categories of physical deterioration, functional obsolescence, and external obsolescence; and the factors creating the loss in value are also sometimes classified as being either curable or incurable. External obsolescence is generally classified as being incurable only, because the cure is normally beyond the control of the property owner. While most elements of deterioration or inadequacy can technologically be corrected, the test of curability is whether the cost of fixing or curing of the condition will result in an equal or greater value increase.

Physical deterioration is the undesirable condition that results from the natural processes of aging, use, stress, and exposure to the elements; and can be classified as curable or incurable. Items of deferred maintenance are generally classified as curable physical deterioration. The measure of this element of deterioration is the cost of restoring each item to new or reasonably new condition.

Incurable physical deterioration results from the deterioration of physical components over time. For purposes of analysis, the components of the facility are divided into categories based on the anticipated total physical life of the component. Long lived items are components expected to have a life span the same as or longer than the physical life of the structure as a whole. Medium lived items are components expected to have a life somewhat shorter than the life of the total structure, and which in all likelihood would require replacement at least once during the physical life of the structure. Short lived items are components expected to have a life much shorter than the life of the total structure, and which would require replacement one or more times during the physical life of the structure.

Functional obsolescence is the adverse effect on (the value of) an asset resulting from shortcomings in design or changes in standards over time that make some aspect of the structure, material, or design unacceptable by current standards. Functional obsolescence is classified into three potential groups (each of which may be either curable or incurable): a deficiency requiring an addition; a deficiency requiring substitution or modernization; and/or a super adequacy.

External obsolescence is the negative influence on value caused by locational and/or economic circumstances which adversely affect the market demand for the property.

The techniques for measuring accrued depreciation are: (1) the observed condition-breakdown technique; (2) the overall age-life technique; and (3) the market extraction technique. I have selected the overall age-life technique. This technique involves estimating the

effective economic age of the improvements by deducting remaining economic life from total economic life. The effective economic age is then expressed as a percentage of total economic life. This percentage is then applied to the cost new estimate to obtain a figure representing the lump sum deduction for accrued depreciation. While this method does not provide for an individual breakdown of physical deterioration, functional obsolescence, or external obsolescence, it nonetheless provides a summary estimate of total depreciation affecting the improvements under analysis.

A facility of the subject's size, quality of construction, and mode of utilization could be expected to have a total economic life of 42 years when new if it were to represent the optimum utilization of the land it occupied (and if impacted by no functional obsolescence or external obsolescence). I estimate the subject improvements to have a remaining economic life of 15 years. By subtracting the estimated 15 year remaining economic life of the subject improvements from the potential total economic life, an effective economic age of 27 years is indicated for the subject improvements.

Dividing a 27 year effective economic age by a 42 year total economic life indicates total accrued depreciation of 64.29%, or \$3,259,800. Subtracting accrued depreciation from cost new results in a depreciated cost new of the improvements of \$1,856,800. To restate, the estimate of accrued depreciation reflects not only the physical deterioration resulting from use and exposure to the elements but also loss in value due to functional and external factors.

Value Estimate by the Cost Approach

By adding land value as estimated above to the depreciated cost of the improvements and cranes, a value estimate by the Cost Approach is indicated as summarized below:

Land Value		\$ 235,000
Cost New of the Improvement	\$5,070,500	
Less: Accumulated Depreciation	<u>\$3,213,700</u>	
Depreciated Cost of the Improvements		<u>\$1,856,800</u>
Total Value Indication via the Overall Age-Life Technique		\$2,091,800
Rounded to		\$2,050,000

Introduction

The underlying premise of the Sales Comparison Approach is the concept that the analysis of sales of reasonably similar properties provides an appraiser with empirical data from which observations and conclusions about the property being appraised can be made. Proper application of the approach requires that in the selection of sales data to directly compare with the subject:

Only market (or arms length) transactions be weighed, and the factual data of each transaction be confirmed to the greatest extent possible.

The degree of comparability of each sale to the subject is considered; that differences in physical, functional, and economic characteristics are noted; and adjustments for the differences be made.

The value conclusion derived is consistent with the analysis of the sales data.

For a conveyance to qualify as a "market" transaction four factors must traditionally be present. The conveyance must be "arm's length"; that is, it must be between two non-related parties, each acting in self interest. Neither the buyer nor the seller should have been under compulsion to act. The property should be available for a reasonable period of time to the class of purchasers best able to utilize the facility. The price must be expressed in cash, adjusted for any special financing, concessions, or special terms.

For any class of real estate, the area in which comparative data are searched must reflect the market area prospective purchasers would consider. Comparability is also a function of the physical character of the asset being appraised. Classes of real estate in which physical characteristics are standardized, or in which scale is small, and/or in which the commodity has achieved relatively uniform recognition require that the sales data closely resemble the appraised property. However, as specifications become more complex, as scale increases, and/or as market recognition declines, the physical similarity of the sales data and the appraised property tends to decline.

So that a conclusion from the analysis of the sales data can be drawn, a unit of comparison has been selected. Calculation of a unit of comparison provides a common denominator by which the market sales can be related to each other and to the subject property. The commonly accepted unit of comparison in the valuation of industrial facilities is the selling price per square foot of gross building area including the land. This unit of comparison emphasizes the contribution of the building, and the contribution of the land is merged into the reflected unit selling price.

To judge the degree of comparability that exists between the subject and the sales selected for direct comparison with the subject, several guidelines have been applied:

Each sale must be in the same market as the subject. To the extent that a market is a meeting place for buyers and sellers of real estate of a given type, the boundaries of the market are set by the participants in merchandising and absorbing competitive properties.

The boundaries of a market are consequently economic in character, and not purely physical or geographical. Comparative sales should not be too remote in location from the subject property but the nature and character of the subject appeals to a broad regional market, and thus the relevant market area is potentially a broad geographic area.

Physical characteristics of the subject and the sales must be similar in many regards although it is clear that a sale need not be identical to the subject to provide evidence of market activity.

The functional adequacy of each sale property and the subject property must be competitive in terms of ability of each to support similar (although not identical) functions. The sale and the subject need not be duplicates of one another and the presence of special features or unusual features in a sale property or in the subject property do not necessarily preclude comparison on an overall basis.

Critical to the list of comparability is the consideration of the potential costs to convert the sale property to make a likeness of the subject. Economic realism dictates that a fair and equitable value conclusion is best developed by analysis of empirical data, although the data does not always fit into neat logical valuation boxes and must accordingly be adjusted.

While a diverse array of sales was initially considered, the sales discussed below for direct comparison to the subject are those transactions which I consider to be most similar to the subject. While care was exercised to accumulate sales that are very similar to the subject, relative dissimilarities exist. For features which are dissimilar between the sales and the subject, adjustments have been made leading to an adjusted indication of the price at which the property being appraised could be expected to sell. In making adjustments, all relevant factors were considered including:

1. Property rights conveyed.
2. Financing terms and/or the cash equivalency of the price attributable to the real estate.
3. Conditions of sale.
4. The effect of the passage of time on selling prices and upon the relative availability of competing properties.
5. The nature of surrounding development.
6. Adequacy of the site's features for utilization.
7. Uses permitted by zoning and other property use controls.
8. Relative size.

9. Age, condition, and quality of the improvements.
10. Functional adequacy of the building design, layout, floor plan, and space allocation.

On subsequent pages the pertinent details of six (6) transactions of industrial facilities are described and related to the subject. These sales have been selected from among all of the sales of industrial facilities in Delaware County on which I have reliable data. Sales occurring in time periods too distant from the date of valuation; facilities whose age, condition, and quality are too dissimilar from the subject; transactions on which reliable data could not be confirmed; properties competing in different markets; and facilities whose functional characteristics are not consistent with the subject are not presented in this report although the analysis of a broad range of sales data nonetheless provides valuable insights relative to the valuation of the subject. Pertinent details of the sales given the greatest weight in the valuation of the subject follow.

IMPROVED PROPERTY SALE NO. 1
790 BIRNEY HIGHWAY – ROLLING HILLS INDUSTRIAL PARK
ASTON TOWNSHIP
DELAWARE COUNTY, PA

DATE OF SALE:	September 5, 2006	IDENTIFICATION:	02-00-01277-05 and 06
DEED BOOK:	3897	PAGE:	1334
		CONSIDERATION:	\$3,200,000
GRANTOR:	Beverly Allen		
GRANTEE:	Maguire Family Dynasty Trust		
LAND AREA:	6.789 acres		
BUILDING AREA:	52,300 square feet		
ZONING:	LI Limited Industrial District		
LAND FEATURES:	This irregularly shaped assemblage of 2 contiguous parcels has 182.91' frontage at the end of the Kent Road cul-de-sac and 822.16' frontage on Aston Mills Road. The topography of the parcel is generally level, and the elevation of the tract is generally at street grade. Public water, sanitary sewer, storm sewer, electric and gas lines serviced the site at the time of sale.		
BUILDING DESCRIPTION:	This one story warehouse is constructed of steel frame, masonry exterior walls, and built up composition roof. Loading facilities consist of 1 drive in door and 4 tailgate doors.		
BUILDING AGE AND CONDITION:	Year Constructed: 1974 Year(s) Remodeled/Expanded: 1989 Physical Age: 25 years Construction Quality: Average Overall Physical Condition: Average		
BUILDING FEATURES:	Sprinklered: 10% Office Area: 5,500 square feet Bay Sizes: Adequate Lavatories: Adequate Heating: Gas fired unit heaters Air Conditioning: Office areas only		
USE BEFORE SALE:	Warehouse		
USE AFTER SALE:	Warehouse		

SALES COMPARISON APPROACH

UNADJUSTED BASE PRICE: \$61.19 per square foot of building area excluding the land.

INITIAL ADJUSTMENTS:	Property Rights	1.00 factor	
	Financing/Cash Equivalency	1.00 factor	
	Conditions of Sale	1.00 factor	
	Market Conditions	1.00 factor	
	Total Initial Adjustment:		1.00 factor

ADJUSTED BASE PRICE: \$61.19 per square foot of building area excluding the land.

FINAL ADJUSTMENTS:	Location	-5% adjustment	
	Site Adequacy	-5% adjustment	
	Zoning	0% adjustment	
	Relative Size	0% adjustment	
	Physical Features	+5% adjustment	
	Functional Features	-5% adjustment	
	Other Features	0% adjustment	
	Total Final Adjustment:		-10% adjustment

ADJUSTED BASE PRICE: \$55.07 per square foot of building area excluding the land.



IMPROVED PROPERTY SALE NO. 1

IMPROVED PROPERTY SALE NO. 2**1000 EAST ASHLAND AVENUE – FOLCROFT WEST INDUSTRIAL PARK****FOLCROFT BOROUGH****DELAWARE COUNTY, PA**

DATE OF SALE:	January 23, 2006	IDENTIFICATION:	20-00-00063-00		
DEED BOOK:	3710	PAGE:	2110	CONSIDERATION:	\$2,000,000
GRANTOR:	The Narzikul Family, LP				
GRANTEE:	Second Ashland Avenue Company, LLC				
LAND AREA:	3.135 acres				
BUILDING AREA:	30,375 square feet				
ZONING:	LIB Light Industrial District				
LAND FEATURES:	This irregularly shaped corner parcel has 400' frontage on Ashland Avenue and 350' frontage on Maple Avenue. The topography of the parcel is generally level, and the elevation of the tract is generally near street grade. Public water, sanitary sewer, storm sewer, electric and gas lines serviced the site at the time of sale.				
BUILDING DESCRIPTION:	This one story industrial building is constructed of steel frame, masonry exterior walls, and built up composition roof. Loading facilities consist of 4 drive in truck doors. One 30 ton crane and 2 five ton cranes serve the building.				
BUILDING AGE AND CONDITION:	Year Constructed: 1970 Year(s) Remodeled/Expanded: None Physical Age: 36 years Construction Quality: Average Overall Physical Condition: Average				
BUILDING FEATURES:	Sprinklered: 6.60% Office Area: 2,000 square feet Bay Sizes: Adequate Lavatories: Adequate Heating: Gas fired unit heaters Air Conditioning: Office areas only				
USE BEFORE SALE:	Warehouse				
USE AFTER SALE:	Warehouse				

SALES COMPARISON APPROACH

UNADJUSTED BASE PRICE: \$65.84 per square foot of building area excluding the land.

INITIAL ADJUSTMENTS:	Property Rights	1.00 factor	
	Financing/Cash Equivalency	1.00 factor	
	Conditions of Sale	1.00 factor	
	Market Conditions	1.00 factor	
	Total Initial Adjustment:		1.00 factor

ADJUSTED BASE PRICE: \$65.84 per square foot of building area excluding the land.

FINAL ADJUSTMENTS:	Location	0% adjustment	
	Site Adequacy	-10% adjustment	
	Zoning	0% adjustment	
	Relative Size	0% adjustment	
	Physical Features	0% adjustment	
	Functional Features	-5% adjustment	
	Other Features	0% adjustment	
	Total Final Adjustment:		-15% adjustment

ADJUSTED BASE PRICE: \$55.96 per square foot of building area excluding the land.



IMPROVED PROPERTY SALE NO. 2

IMPROVED PROPERTY SALE NO. 3
900 CARPENTERS CROSSING – FOLCROFT WEST INDUSTRIAL PARK
FOLCROFT BOROUGH
DELAWARE COUNTY, PA

DATE OF SALE:	February 14, 2006	IDENTIFICATION:	20-00-01251-04
DEED BOOK:	3731	PAGE:	63
		CONSIDERATION:	\$1,500,000
GRANTOR:	Henderson Columbia Corporation		
GRANTEE:	Wal-Pat, LLC		
LAND AREA:	2.54 acres		
BUILDING AREA:	25,600 square feet		
ZONING:	LIB Light Industrial District		
LAND FEATURES:	This irregularly shaped interior parcel has 307' frontage on Columbia Avenue (Carpenters Crossing). The topography of the parcel is generally level, and the elevation of the tract is generally near street grade. Public water, sanitary sewer, storm sewer, electric and gas lines serviced the site at the time of sale.		
BUILDING DESCRIPTION:	This one story industrial building is constructed of steel frame, masonry exterior walls, and built up composition roof. Loading facilities consist of 8 tailgate truck doors and 1 drive in truck door.		
BUILDING AGE AND CONDITION:	Year Constructed: 1980 Year(s) Remodeled/Expanded: None Physical Age: 26 years Construction Quality: Average Overall Physical Condition: Average		
BUILDING FEATURES:	Sprinklered: 5.00% Office Area: 1,280 square feet Bay Sizes: Adequate Lavatories: Adequate Heating: Gas fired unit heaters Air Conditioning: Office areas only		
USE BEFORE SALE:	Warehouse		
USE AFTER SALE:	Warehouse		

SALES COMPARISON APPROACH

UNADJUSTED BASE PRICE: \$58.59 per square foot of building area excluding the land.

INITIAL ADJUSTMENTS:	Property Rights	1.00 factor	
	Financing/Cash Equivalency	1.00 factor	
	Conditions of Sale	1.00 factor	
	Market Conditions	1.00 factor	
	Total Initial Adjustment:		1.00 factor

ADJUSTED BASE PRICE: \$58.59 per square foot of building area excluding the land.

FINAL ADJUSTMENTS:	Location	0% adjustment	
	Site Adequacy	0% adjustment	
	Zoning	0% adjustment	
	Relative Size	0% adjustment	
	Physical Features	+5% adjustment	
	Functional Features	-10% adjustment	
	Other Features	0% adjustment	
	Total Final Adjustment:		-5% adjustment

ADJUSTED BASE PRICE: \$55.66 per square foot of building area excluding the land.



IMPROVED PROPERTY SALE NO. 3

IMPROVED PROPERTY SALE NO. 4
20 COMMERCE DRIVE - I95 INDUSTRIAL PARK
CHESTER TOWNSHIP
DELAWARE COUNTY, PA

DATE OF SALE:	August 1, 2007	IDENTIFICATION:	07-00-00292-13
DEED BOOK: 4167	PAGE: 1085	CONSIDERATION:	\$923,000
GRANTOR:	Michael Zampino		
GRANTEE:	Watson Goldhorn		
LAND AREA:	3.00 acres		
BUILDING AREA:	15,626 square feet		
ZONING:	I Industrial District		
LAND FEATURES:	This rectangular shaped corner parcel has 160' frontage on the north side of McDonald Boulevard and 325' frontage on the east side of Commerce Drive. The topography of the parcel is generally level, and the elevation of the tract is generally at street grade. Public water, sanitary sewer, storm sewer, electric and gas lines serviced the site at the time of sale.		
BUILDING DESCRIPTION:	This one story industrial building is constructed of masonry walls, built-up roof cover on steel deck, and steel frame. Loading facilities consist of 2 tailgate truck doors and 1 drive in truck door.		
BUILDING AGE AND CONDITION:	Year Constructed: 1977 Year(s) Remodeled/Expanded: None Physical Age: 30 years Construction Quality: Average Overall Physical Condition: Average		
BUILDING FEATURES:	Sprinklered: 7.00% Office Area: 1,094 square feet Bay Sizes: Adequate Lavatories: Adequate Heating: Gas fired unit heaters Air Conditioning: Office areas only		
USE BEFORE SALE:	Single occupant industrial utilization		
USE AFTER SALE:	Single occupant industrial utilization		

SALES COMPARISON APPROACH

UNADJUSTED BASE PRICE: \$59.07 per square foot of building area excluding the land.

INITIAL ADJUSTMENTS:	Property Rights	1.00 factor	
	Financing/Cash Equivalency	1.00 factor	
	Conditions of Sale	1.00 factor	
	Market Conditions	1.00 factor	
	Total Initial Adjustment:		1.00 factor

ADJUSTED BASE PRICE: \$59.07 per square foot of building area excluding the land.

FINAL ADJUSTMENTS:	Location	-5% adjustment	
	Site Adequacy	-10% adjustment	
	Zoning	0% adjustment	
	Relative Size	0% adjustment	
	Physical Features	+10% adjustment	
	Functional Features	-5% adjustment	
	Other Features	0% adjustment	
	Total Final Adjustment:		-10% adjustment

ADJUSTED BASE PRICE: \$53.16 per square foot of building area excluding the land.



IMPROVED PROPERTY SALE NO. 4

IMPROVED PROPERTY SALE NO. 5
100 COMMERCE DRIVE - I-95 INDUSTRIAL PARK
CHESTER TOWNSHIP
DELAWARE COUNTY, PA

DATE OF SALE:	September 1, 2008	IDENTIFICATION:	07-00-00292-04
DEED BOOK: 4410	PAGE: 444	CONSIDERATION:	\$1,960,000
GRANTOR:	John McGrory		
GRANTEE:	Chalmers & Kubeck, Inc.		
LAND AREA:	2.54 acres		
BUILDING AREA:	27,162 square feet		
ZONING:	I Industrial District		
LAND FEATURES:	This nearly rectangular shaped interior parcel has 200' frontage on the east side of Commerce Drive. The topography of the parcel slopes upward mildly from south to north, and the elevation of the tract is generally above street grade. Public water, sanitary sewer, storm sewer, electric and gas lines serviced the site at the time of sale.		
BUILDING DESCRIPTION:	This one story and part two story industrial building is constructed of masonry walls, built-up roof cover on steel deck, and steel frame. Loading facilities consist of 3 tailgate truck doors, 1 van height loading and storage dock, and 2 drive in truck doors.		
BUILDING AGE AND CONDITION:	Year Constructed: 1987 Year(s) Remodeled/Expanded: None Physical Age: 21 years Construction Quality: Average Overall Physical Condition: Average		
BUILDING FEATURES:	Sprinklered: 0.00% Office Area: 3,300 square feet Bay Sizes: Adequate Lavatories: Adequate Heating: Gas fired unit heaters Air Conditioning: Office areas only		
USE BEFORE SALE:	Single occupant industrial utilization		
USE AFTER SALE:	Single occupant industrial utilization		

SALES COMPARISON APPROACH

UNADJUSTED BASE PRICE: \$72.16 per square foot of building area excluding the land.

INITIAL ADJUSTMENTS:	Property Rights	1.00 factor	
	Financing/Cash Equivalency	1.00 factor	
	Conditions of Sale	1.00 factor	
	Market Conditions	1.00 factor	
	Total Initial Adjustment:		1.00 factor

ADJUSTED BASE PRICE: \$72.16 per square foot of building area excluding the land.

FINAL ADJUSTMENTS:	Location	-5% adjustment	
	Site Adequacy	0% adjustment	
	Zoning	0% adjustment	
	Relative Size	0% adjustment	
	Physical Features	-10% adjustment	
	Functional Features	-10% adjustment	
	Other Features	0% adjustment	
	Total Final Adjustment:		-25% adjustment

ADJUSTED BASE PRICE: \$54.12 per square foot of building area excluding the land.



IMPROVED PROPERTY SALE NO. 5

IMPROVED PROPERTY SALE NO. 6
3 HORNE DRIVE – FOLCROFT WEST INDUSTRIAL PARK
FOLCROFT BOROUGH
DELAWARE COUNTY, PA

DATE OF SALE:	May 11, 2006	IDENTIFICATION:	20-00-01135-04
DEED BOOK: 3798	PAGE: 1852	CONSIDERATION:	\$1,850,000
GRANTOR:	3 Horne LP		
GRANTEE:	3 Horne Drive LP		
LAND AREA:	2.2059 acres		
BUILDING AREA:	32,700 square feet		
ZONING:	LIB Light Industrial District		
LAND FEATURES:	This irregularly shaped interior parcel has 287.92' frontage on the Horne Drive cul-de-sac. The topography of the parcel is generally level, and the elevation of the tract is generally at or near street grade. Public water, sanitary sewer, storm sewer, electric and gas lines serviced the site at the time of sale.		
BUILDING DESCRIPTION:	This one story and part two story light industrial building is constructed of steel frame, masonry exterior walls, and built up composition roof. Loading facilities consist of 4 drive in truck door and 1 tailgate truck door.		
BUILDING AGE AND CONDITION:	Year Constructed: 1973 Year(s) Remodeled/Expanded: None Physical Age: 33 years Construction Quality: Average Overall Physical Condition: Average		
BUILDING FEATURES:	Sprinklered: 0.00% Office Area: 5,760 square feet Bay Sizes: Adequate Lavatories: Adequate Heating: Gas fired unit heaters Air Conditioning: Office areas only		
USE BEFORE SALE:	Single occupant light industrial		
USE AFTER SALE:	Single occupant light industrial		

SALES COMPARISON APPROACH

UNADJUSTED BASE PRICE: \$56.57 per square foot of building area excluding the land.

INITIAL ADJUSTMENTS:	Property Rights	1.00 factor	
	Financing/Cash Equivalency	1.00 factor	
	Conditions of Sale	1.00 factor	
	Market Conditions	1.00 factor	
	Total Initial Adjustment:		1.00 factor

ADJUSTED BASE PRICE: \$56.57 per square foot of building area excluding the land.

FINAL ADJUSTMENTS:	Location	0% adjustment	
	Site Adequacy	0% adjustment	
	Zoning	0% adjustment	
	Relative Size	0% adjustment	
	Physical Features	+5% adjustment	
	Functional Features	-5% adjustment	
	Other Features	0% adjustment	
	Total Final Adjustment:		0% adjustment

ADJUSTED BASE PRICE: \$56.57 per square foot of building area excluding the land.



IMPROVED PROPERTY SALE NO. 6

Value Estimate by the Sales Comparison Approach

To account for the relevant differences that exist between the subject and each of the sales, appropriate adjustments have been made. In this analysis, adjustments have been made to each sale in two phases. First, each sale has been adjusted as applicable for property rights conveyed, for financing and/or cash equivalency considerations, for any unusual conditions of sale affecting price, and for the effect of time, if any, on selling prices and upon the relative availability of competing properties. These adjustments are cumulative in nature, have been expressed on a factor basis, and have been multiplied by one another to arrive at an adjusted base price for each sale. The second phase of the adjustment process is to deal with property characteristics that are different between the subject property and each sale. These factors are serial in nature, and have been summed.

Improved Property Sale No. 1 is a 52,300 square foot warehouse in the Rolling Hills Industrial Park, Aston Township. The sale has a superior location meriting a downward five percent adjustment. The sale has more land area than the subject so I adjusted the sale downward five percent for site adequacy. The sale does not provide the crane service featured by the sub warranting an upward 5% adjustment for physical features. The sale, with a rectangular shaped building, is functionally superior to the subject. I adjusted the sale downward five percent for functional features. The sum of the adjustments is a downward 10% adjustment.

Improved Property Sale No. 2 is a 30,375 square foot warehouse in the Folcroft West Industrial Park, Folcroft Borough, which is the same location as the subject. The sale has more land area and a corner location that warranted an adjustment of downward 10 percent for site adequacy. The sale provides crane service. The sale is functionally superior to the subject. I adjusted the sale downward five percent for functional features. The sum of the adjustments is a downward 15% adjustment.

Improved Property Sale No. 3 is a 25,600 square foot warehouse also located in the Folcroft West Industrial Park, Folcroft Borough. The sale is not crane served, which merits an upward five percent adjustment for physical features. The sale, with a rectangular shaped building, is functionally superior to the subject. I adjusted the sale downward 10% for functional features. The sum of the adjustments is a downward five percent adjustment.

Improved Property Sale No. 4 is a 15,626 square foot single occupant industrial facility located in the I95 Industrial Park, Chester Township. The sale has a superior location meriting a downward five percent adjustment. The sale has more land area and a corner location that warranted an adjustment of downward 10 percent for site adequacy. The sale is not crane served and the subject has a better interior finish, which merit an upward 10% adjustment for physical features. The sale, with a rectangular shaped building, is functionally superior to the subject. I adjusted the sale downward 10% for functional features. The sum of the adjustments is a downward 10% adjustment.

Improved Property Sale No. 5 is a 27,162 square foot single occupant industrial facility located in the I95 Industrial Park, Chester Township. The sale has a superior location meriting a downward five percent adjustment. The sale has more land area that warranted an adjustment of

SALES COMPARISON APPROACH

downward five percent for site adequacy. The sale is not crane served but it is a newer building with better interior features. I adjusted the sale downward five percent for physical features. The sale, with a rectangular shaped building, is functionally superior to the subject. I adjusted the sale downward 10% for functional features. The sum of the adjustments is a downward 25% adjustment.

Improved Property Sale No. 6 is a 32,700 square foot single occupant light industrial facility located adjacent to the subject in the Folcroft West Industrial Park, Folcroft Borough. The sale is not crane served, which merits an upward five percent adjustment for physical features. The sale, with a rectangular shaped building, is functionally superior to the subject. I adjusted the sale downward five percent for functional features. The sum of the adjustments is a zero percent adjustment.

Subsequent to adjustment, unit selling prices of the sales range from \$53.16 per square foot of building area including the land to \$56.57 per square foot of building area including the land as follows:

<u>TRANSACTION</u>	<u>ADJUSTED UNIT SELLING PRICE</u>
Improved Property Sale No. 1	\$55.07 per square foot of building area including the land
Improved Property Sale No. 2	\$55.96 per square foot of building area including the land
Improved Property Sale No. 3	\$55.66 per square foot of building area including the land
Improved Property Sale No. 4	\$53.16 per square foot of building area including the land
Improved Property Sale No. 5	\$54.12 per square foot of building area including the land
Improved Property Sale No. 6	\$56.57 per square foot of building area including the land

After taking into consideration all of the dissimilar features between the sales analyzed and the subject property, it is my opinion that the indicated value of the subject by this approach is \$55.00 per square foot of building area including the land. Multiplying the subject's 36,940 square feet of gross building area by \$55.00 per square foot reflects a value of \$2,031,700. I rounded this estimate slightly to \$2,000,000.

Introduction

All investments, not just real estate investments, are subject to risk. The principle exposures to risk are that the anticipated periodic (monthly, annual, etc.) return on the investment may not be achieved, and/or all or a portion of the capital value of the asset may be lost, and/or investment in the asset might create financial liability in excess of the investment in the asset.

To account for risk, to account for the time value of money, and to account for the effect of inflation (or deflation) on the purchasing power of money, income streams are discounted over a specific period of time or capitalized in perpetuity at a rate that reflects the appropriate level of risk associated with the particular real estate investment. Net revenue streams are not simply multiplied by a period of years into a value conclusion. The principal risks that affect direct investments in real estate include:

Interest Rate Risk: As nominal interest rates rise, the value of a real estate investment with a fixed revenue stream is likely to decrease.

Credit Risk: An investment in real estate can be negatively affected if the lessee or a guarantor to a lease is unable or unwilling to make timely (monthly, annual, etc.) payments.

Market Risk: The price of a real estate investment may go up or go down due to factors affecting the real estate market in general or the market for a specific property in particular.

Liquidity Risk: Liquidity risk exists when a particular investment in real estate is difficult to purchase or sell at an advantageous time or price.

Leverage Risk: Leverage, or the use of mortgage funds, may cause the value of an interest in real estate to be more volatile than the value of the asset as a whole.

Real Estate Specific Risk: Losses from casualty or condemnation, changes in local and general market conditions, changes in land use regulations, limitations on rental increases, uncontrollable increases in real estate taxes and other operating expenses, and other similar matters can diminish the value of an investment in real estate.

Management Risk: The value of a real estate investment can be negatively affected by the experience of the entity responsible for the leasing and management of the asset.

Beyond underwriting criteria of lenders and selection preferences of investors which tend to be property specific, the rates of return lenders and investors will expect are to a large degree driven by their perceptions of these categories of risk.

The Income Approach examines the economic benefits of property ownership in comparison to the risks of ownership, and arrives at a value conclusion by either one of the two following methods:

Dividing the stabilized net income before debt service which the property could produce, if rented, by an appropriate capitalization rate. This form of capitalization is known as direct capitalization and is most applicable in circumstances in which a relatively uniform (although uncertain) income stream is being analyzed. The capitalization rate is directly dependent upon the level of risk perceived to be associated with ownership of the property.

Projecting an income stream over a holding period; and calculating the present worth of the income stream discounted at an appropriate rate over the projected holding period plus the present worth of the reversionary interest discounted at an appropriate discount rate at the end of the holding period. Known as discounted cash flow analysis or discounted net income analysis, this form of capitalization is most applicable in the analysis of properties wherein the original purchase price, a likely holding period, and an internal rate of return are known; or in situations wherein an irregular flow of income is to be expected; or in situations where the future income is impacted by such factors as a soft market, a rent-up period, or a vacancy period during renovations, rehabilitation, or modernization. The discount rate is directly dependent upon the level of risk perceived to be associated with ownership of the property.

Based on the size, age, condition, and utilization of the subject, I have chosen to capitalize the net income of the subject utilizing direct capitalization as my primary technique.

Estimate of Stabilized Income and Expenses

Review of Operations. The most recent operations of the subject indicate that NP Precision pays an annual rent per square foot on a triple net basis whereby the tenant is responsible for the payment of all operating expenses.

Income Analysis. I believe that the market rent for the subject is \$7.00 per square foot per year on a triple net basis based on an analysis of the leases summarized on Page 110. The leases range from \$6.50 per square foot to \$7.95 per square foot. All of the leases are for single tenant light industrial/flex buildings. The Elmwood Avenue property is located in the Folcroft East Industrial Park, which is located less than two miles east of the subject and closer to the Philadelphia International Airport. The leases for Carpenters Crossing and Ashland Avenue are located in the Folcroft West Industrial Park, the subject's industrial park.

The building occupied by UPS Supply Chain was constructed in 1985 and offers better functional features and a higher percentage of office area. While 550 Elmwood Avenue is not crane served, it is appropriate to adjust the \$7.95 per square foot rent downward to compare it to the subject. The leases to Town Air Freight and Landair involve facilities that are similar to the subject property in age and functional features, but they are not crane served. I believe that a slight upward adjustment is necessary to relate these properties to the subject. Based on the differences in age, condition, percentage of office area, and functional features, I estimate the market rent for the subject property to be \$7.00 per square foot per year on a triple net basis.

<u>SUMMARY OF COMPARABLE LEASES</u>					
Location	Tenants	Leased Area	Date & Term	Rent Per SF	Terms
550 Elmwood Avenue Sharon Hill Borough Folcroft East Industrial Park Delaware County, PA	UPS Supply Chain	52,780 SF	2005 - 5 Years	\$7.95	Net Lease
850 Carpenters Crossing Folcroft Borough Folcroft West Industrial Park Delaware County, PA	Town Air Freight	16,000 SF	2008 - 5 Years	\$6.50	Net Lease \$6.70/SF in 2010
1111 Ashland Avenue Folcroft Borough Folcroft West Industrial Park Delaware County, PA	Landair	33,000 SF	2003 - 5 Years	\$6.70	Net Lease

Expense Analysis Based upon my review of comparable properties, it is my opinion that the annual expenses are as follows:

- *Vacancy Rate:* The overall vacancy rate is 10.00%. As discussed in the Market Analysis section, the current vacancy rate for industrial/flex facilities within a three mile radius of the subject is 10.8 percent. By year end 2013, I project that the vacancy rate for industrial/flex properties will range between 7.4% for the three mile radius around the subject and 11.6% for the Delaware Valley as a whole. Therefore, I believe it is appropriate to allow for a 10% vacancy on a stabilized basis.
- *Horne Drive Maintenance:* The annual pro rata share of the cost to maintain Horne Drive is \$1,500 based on discussions with representatives of the NP Precision Incorporated, the occupant of the subject property. The \$1,500 cost represents the three average total for snow removal and periodic maintenance of the road surface.
- *Insurance:* The annual cost of insurance is \$0.10 per square foot of gross building area. According to my review of operating expenses for properties in the Folcroft East Industrial Park and the Folcroft West Industrial Park, annual insurance costs ranged between \$0.09 per square foot and \$0.11 per square foot.
- *Utilities:* The annual cost of utilities is \$0.50 per square foot of gross building area. Representatives of NP Precision Incorporated, the subject occupant,

indicated that the annual cost for all utilities averaged \$0.52 per square foot per year.

- *Annual Real Estate Taxes:* The annual real estate taxes are \$1.10 per square foot of gross building area. As discussed in the Real Estate Taxes and Assessment section, annual real estate taxes were \$1.05 per square foot per year as of the date of valuation. Since it is likely that real estate taxes will increase at some point in the future, I established \$1.10 per square foot as the stabilized cost.
- *Management Fee:* The management fee is equivalent to 3.00% of Adjusted Gross Income. John Condon, Chief Financial Officer for the Henderson Group, indicated that the management fees ranged between 3.00% and 4.00% of actual collections for industrial/flex buildings in the subject vicinity. Since the subject is a single occupant facility, I estimated the management fee to be 3.00%, which is at the lower end of the range.
- *Leasing Commissions:* The annual leasing commissions are 5.00% of Adjusted Gross Income. Joseph Patti of Patrick G. Tomlinson Real Estate indicates that leasing commissions in the Delaware County industrial/flex market average 5.00% of actual collections.
- *Capital Expense Reserve:* The annual capital expense reserve is \$0.50 per square foot of gross building. Based on an analysis of the subject's medium lived and short lived building components, it appears that the subject will require annual maintenance totaling \$275,000 over the next ten years. The annual cost to fund the maintenance obligation based on a ten year holding period and the property's 8.50% overall capitalization rate is \$18,537, or \$0.50 per year.

Stabilized Income and Expense Estimate. I have estimated potential gross income at \$304,410 based upon an analysis of leases for similar properties. Deducting an allowance for vacancy of \$30,440 (10%) and expenses of \$104,690 results in a net income before debt service of \$169,280. My stabilized income and expense estimate can be found on the following page.

STABILIZED INCOME & EXPENSE ESTIMATE
Rounded to Nearest \$10

		<u>Total</u>
Potential Gross Income		
Base Rental Income		\$240,110
Expense Reimbursement Income		
Horne Dr Maintenance	1,500	
Insurance	3,690	
Utilities	18,470	
Real Estate Taxes	40,630	
Total Reimbursement Income		<u>64,290</u>
Total Potential Gross Income		304,400
General Vacancy (5%)		<u>(30,440)</u>
Adjusted Gross Income		273,960
Operating Expenses		
Horne Dr Maintenance	1,500	
Insurance	3,690	
Utilities	18,470	
Real Estate Taxes	40,630	
Management Fee	8,220	
Total Operating Expenses		<u>72,510</u>
Net Operating Income		201,450
Leasing & Capital Costs		
Leasing Commissions	13,700	
Capital Expense Reserve	18,470	
Total Leasing & Capital Costs		<u>32,170</u>
Net Income Before Debt Service		\$169,280

Overall Capitalization Rate – Built Up

Mortgage Interest Rate and Mortgage Term Selection. In order to identify market interest rates for long term debt for properties such as the subject as of the date of valuation, I have surveyed several of the major local lending institutions including both regional and community banking institutions. The table on the following page summarizes the information.

For a facility such as the subject, mortgage financing at interest rates from 5.91% to

7.50% are competitively available. Typical loan terms that are available range from 20 years to 25 years for properties such as the subject. I estimate that the general preference is to write a loan for a term of no longer than 25 years on a facility like the subject, and that the likely interest rate associated with such a loan would be 7.50% per year.

<u>MORTGAGE INTEREST RATE AND AMORTIZATION</u>				
Institution	Benchmark/ Spread	Interest Rate	Maturity	Amortization
Sovereign Bank	LIBOR (2.6806%) + 4.00-4.50%	6.68% to 7.18%	10 Years	20-25 Years
Citizens Bank	Quote Not Based on Benchmark	6.50% to 7.50%	7 Years	25 Years
DNB First	5Y TBill (3.41%) + 2.50%-3.00%	5.91% to 6.41%	5 Years	20 Years
Wilmington Trust	5Y TBill (3.41%) + 2.50%-3.00%	5.91% to 6.41%	5 Years	20-25 Years

Loan to Value Ratio and Weighted Cost of Capital Estimate. The institutions surveyed indicated typical loan to value ratios as follows:

<u>LOAN TO VALUE RATIO</u>	
Institution	Loan to Value Ratio
Sovereign Bank	70% to 75%
Citizens Bank	75%
DNB First	75% to 80%
Wilmington Trust	75%

Loan to value ratios range from 70% to 80% depending upon internal underwriting criteria and regulatory procedures. Currently, the normal procedure in a sale transaction is for the borrower to invest no less than 20% to 30% in equity capital to obtain the requested mortgage. Because of the subject's various characteristics, I have utilized a 70% loan to value ratio assuming that a potential purchaser would have an adequate credit rating to meet underwriting criteria.

Equity Yield Rate Selection. The rate of return on capital is of serious concern inasmuch as real estate is considered to be a long term capital investment. Among alternative equity investments I have chosen 12% as being indicative of the required rate of return that would be expected by an investor acquiring the subject. Real estate must compete in the capital markets for investment dollars and, consequently, the yield generated by a real estate investment must be competitive with other classes of long term investments.

Investment Holding Period. Industrial properties in general have a typical investment

holding period from seven to ten years based upon turnover rates of competitive facilities in Delaware County. However, industrial properties such as the subject are often held for longer than average periods. With these factors in mind, I have utilized a holding period of 10 years in my capitalization rate development.

Rate of Net Income Change over the Projection Period. In my capitalization rate development I have estimated that the net income anticipated at the subject property over the 10 year holding period will increase 1.50% per year. This assumption has been derived from a review of the previous 10 year period sale/resale activity of industrial facilities in Delaware County, anticipated future consumer price index changes, and likely future occupancy patterns affecting the ability of owners to escalate rentals over time. Net income patterns have been extremely variable in the past. At present, market conditions have stabilized and a mildly escalating income stream is a reasonable expectation.

Basic Capitalization Rate Development. In building up the overall capitalization rate, I have taken into account the quality of the subject investment, currently available mortgage financing terms, investor "cash on cash" requirements, and the likelihood of future increases/decreases in net income and market value. In a market of rising prices, a leveraged real estate investment offers the investor an increased yield when the factors of amortization and capital appreciation are taken into account. In a market of falling prices, a leveraged real estate investment offers the investor the opportunity to offset amortization against capital depreciation to stabilize yield.

The overall capitalization rate has been developed in a two stage procedure: first, a basic capitalization rate has been calculated, including an adjustment for equity buildup through mortgage amortization during the projected investment holding period; and second, the basic capitalization rate has been adjusted to reflect the costs of property acquisition and disposition and to reflect future changes in income and prices.

The basic capitalization rate has been calculated assuming that a potential purchaser could secure a 7.50% interest rate mortgage for 70% of appraised value for a term of 25 years (indicating a mortgage constant of 8.8679%), and that the required yield to attract investment in the subject would be 12 percent. The basic capitalization rate was developed as follows:

Mortgage Interest Rate (I)	7.5000%
Mortgage Term (n)	25 years
Mortgage Constant Percentage (If)	8.8679%
Equity Yield Rate (Y)	12.0000%
Loan to Value Ratio (M)	70.0000%
Investment Holding Period (N)	10 years
Percentage of Loan Paid Off (P)	20.2825%
Sinking Fund Factor @ Yield Rate (SFF)	5.6984%
Basic Capitalization Rate ("r")	8.9985%
$(M*If)+((1-M)*Y)-(M*P*SFF)$	

Overall Capitalization Rate Development. The basic capitalization rate has been adjusted by factors that account for the normal costs incurred in the acquisition and disposition of an investment property and that reflect changes in both net income and market value during the projected investment holding period. The costs associated with property acquisition and disposition (legal fees, transfer taxes, broker commissions, etc.) are both substantial and well known, and must be factored into the yield expectations of typical investors. I have projected acquisition costs to be 3.00% of the initial purchase price and disposition costs to be 7.00% of the selling price at the end of the projected investment holding period.

Although constant or straight line changes in income and/or value are not always consistent with experience, provision for them is a reasonable consideration that protects against contingencies that do occur from time to time in market behavior and operating performance. Both an increasing income stream and an appreciating market value can be anticipated for the subject as a result of improvement in the demand for industrial facilities in the subject location, and I project that the subject net income and market value will rise 1.50% annually, on average, over a 10 year holding period, or a total of 20 percent.

Factors utilized to derive the investment cost, value change, and income change adjustments to the basic capitalization rate are as follows:

Investment Holding Period (N)	10 years
Acquisition Cost Factor (AC)	3.0000%
Disposition Cost Factor (DC)	7.0000%
Total Value Appreciation (app)	15.0000%
Total Income Increase (inc)	15.0000%
Sinking Fund Factor @ Yield Rate (SFF)	5.6984%
Yield Constant Percentage (Yf)	17.6984%
Income Adjustment Factor (J)	36.5573%
Investment Cost Adjustment (INV) (AC*Yf)+(DC*(1+app)*SFF)	0.9897%
Value Change Adjustment (VAL) (app*SFF)	0.8548%
Income Change Adjustment (INC) (inc*J)	5.4836%
Overall Capitalization Rate ("R") (r+INV-VAL)/(1+INC)	8.6586%

I developed the overall capitalization rate by applying the above factors to the 8.9985% basic capitalization rate as follows:

$$\text{Overall Capitalization Rate "R"} = \frac{r + \text{INV} - \text{VAL}}{100\% + \text{INC}}$$

$$R = 8.6586\% \text{ (rounded to 8.66\%)}$$

Overall Capitalization Rate – Derived from Comparable Sales

In addition to the overall capitalization rate developed in the preceding sections, I also derived an overall capitalization rate from comparable sales. Presented below are four transactions for which the net operating income at the time of sale was available. Derived overall capitalization rates range from 6.45% to 7.97 percent.

<u>OVERALL CAPITALIZATION RATES DERIVED FROM COMPARABLE SALES</u>			
Property	Net Operating Income	Price	Indicated OAR
16 Creek Parkway Boothwyn, PA	\$763,200	\$10,600,000	7.20%
790 Birney Highway Rolling Hills Industrial Park Aston, PA	\$255,000	\$3,200,000	7.97%
900 Carpenters Crossing Folcroft West Industrial Park Folcroft, PA	\$96,800	\$1,500,000	6.45%
1 Tura Lane Folcroft West Industrial Park Folcroft, PA	\$75,000	\$950,000	7.89%

Overall Capitalization Rate – Debt Coverage Formula

A third method to develop an overall capitalization rate is the debt coverage formula. To estimate an overall rate, the debt coverage ratio can be multiplied by the mortgage capitalization rate (the mortgage constant), and the loan to value ratio.⁴³ The financial institution I surveyed indicated that debt coverage ratios ranged from 1.20 to 1.25 as summarized below.

<u>DEBT COVERAGE RATIOS</u>	
Institution	Debt Coverage Ratios
Sovereign Bank	1.20 to 1.25
Citizens Bank	1.25
DNB First	1.20 to 1.25
Wilmington Trust	1.20

In previous sections of the Income Approach, I stated that based on the subject's various characteristics, the likely mortgage constant was 8.87% and the likely loan to value ratio was 70 percent. The following table summarizes the overall capitalization rates that result from utilizing debt service coverage ratios of 1.20 and 1.25, an 8.87% mortgage constant, and a 70% loan to

⁴³ *The Appraisal of Real Estate*, 13th ed., 508.

value ratio.

<u>OVERALL CAPITALIZATION RATES FROM DEBT COVERAGE FORMULA</u>			
Debt Coverage Ratio	Mortgage Constant	Loan to Value Ratio	Indicated Overall Capitalization Rate
1.20	8.87%	70.00%	7.45%
1.25	8.87%	70.00%	7.76%

Selection of Overall Capitalization Rate

I utilized three methods to develop the appropriate overall capitalization rate. First, I built up an overall rate based on the investment requirements of debt and equity, forecasted changes in the subject's net income, and forecasted changes in the subject's property value. The second method derived overall capitalization rates from comparable sales. The third method calculated an overall rate from the debt coverage formula. The following table summarizes the results of the three methods.

<u>OVERALL CAPITALIZATION RATES</u>	
Method	Indicated Overall Capitalization Rate
Built Up Rate	8.66%
Comparable Sales	6.45% to 7.89%
Debt Coverage Formula	7.45% to 7.76%

Based upon the foregoing, I believe that the appropriate capitalization rate is 8.50 percent. The overall rates derived from comparable sales ranged from 6.45% to 7.89%. I believe that the high end of the range of comparable sales establishes the lowest possible capitalization rate for the subject after comparing the various characteristics of the subject and the comparables. The debt coverage formula serves to narrow the range of potential overall rates to at least 7.50 percent. I placed the greatest reliance on the rate I built up with the various debt and equity ingredients, and the forecasted changes in net income and property values for the subject property. Therefore, it is my opinion that the appropriate overall capitalization rate is 8.50 percent.

Value Estimate by the Income Approach

Dividing the \$169,280 net income before debt service by the 8.50% overall capitalization rate indicates a \$1,991,529 value for the subject by the Income Approach, which I rounded to \$1,990,000.

The reconciliation of the value indicators for the fee simple interest in the subject property involves a reconsideration of the various approaches to value.

The Income Approach provided a value estimate of \$1,990,000 based on net leases of light industrial/flex buildings that directly compete with the subject. Analysis of the operations of a number of operations in the Folcroft West Industrial Park provided reliable data. I developed the overall capitalization rate with three different methods. I placed the greatest reliance on the rate I developed with conservative estimates of the projected future growth in the subject's net income and property values when compared to the data provided by the Market Analysis. The two remaining methods, in my opinion, provided the floor and not the ceiling for the appropriate overall capitalization rate. Although the subject is most likely to be purchased by an owner/user that would not place primary emphasis on the Income Approach, the active investment market for properties in the subject's peer group, especially in the Folcroft West Industrial Park, I placed great emphasis on this approach.

The Sales Comparison Approach resulted in a \$2,000,000 value estimate. All of the comparable sales came from the subject's peer group and are located in industrial parks within Delaware County. Three of the sales came from the Folcroft West Industrial Park. One of the improved sales (Improved Sale No. 6) is next door to the subject. At least one of the sales is crane served like the subject. I relied upon the Sales Comparison Approach to the same extent as the Income Approach given the availability of three sales in the subject industrial park and the sale of one of the improved properties adjacent to the subject.

The Cost Approach provided a \$2,050,000 value estimate. Depreciation from all sources totaled more than 60% of the cost new estimate. While an owner/user may be the likely purchaser who would be interested in the cost to replace the property, the subject contains many features that an alternate user would not replicate in today's market. I was reluctant to primarily rely upon the Cost Approach in light of the relatively high percentage of accrued depreciation.

The Sales Comparison Approach and Income Approach yielded nearly the same \$2,000,000 estimate. If I placed equal emphasis on the Sales Comparison Approach and the Income Approach, a \$1,995,000 value results. Data from the Folcroft West Industrial Park provided half of the transaction in the Sales Comparison Approach and a majority of the data that underpinned the Income Approach. The Cost Approach utilized a component estimate to create a reliable cost new for the subject, but I am more swayed by the depth of information provided by the subject's industrial park.

Accordingly, I chose a value conclusion of \$2,000,000, or \$54.14 per square foot. A \$2,000,000 value conclusion is within 2.50% of estimate by the Cost Approach and within 0.50% of the estimate by the Income Approach.

CERTIFICATION OF VALUE

After considering all the facts and circumstances in connection with the subject property, it is my opinion that the market value of the subject fee simple interest in its “as is” condition as of June 1, 2008 to be:

- TWO MILLION DOLLARS -

(\$2,000,000)

ASSUMPTIONS AND LIMITING CONDITIONS

I made this appraisal report subject to the following general assumptions:

- I assume no responsibility for the legal description provided or for matters pertaining to legal or title considerations. I assume that title to the property is good and marketable unless otherwise stated.
- The property is appraised free and clear of any or all liens or encumbrances unless otherwise stated.
- I assume that ownership is responsible and property management is competent.
- I believe that the information furnished by others is reliable, but I give no warranty for its accuracy.
- I assume that all engineering studies are correct. I included the plot plans and illustrative material in this report only to help the reader visualize the property.
- I assume that there are no hidden or unapparent conditions of the property, subsoil, or structures that render it more or less valuable. I do not assume responsibility for such conditions or for obtaining the engineering studies that may be required to discover them.
- I assume that the property is in full compliance with all applicable federal, state, and local environmental regulations and laws unless I have otherwise stated, described, and considered the nonconformity in the appraisal report.
- I assume that the property conforms to all applicable zoning and use regulations and restrictions unless I have otherwise identified, described, and considered the nonconformity in the appraisal.
- I assume that the appropriate local, state, or national governments or private entities or organizations and other legislative or administrative authorities have issued or will issue or renew all required licenses, certificates of occupancy, or consents for any use on which I based the opinion of value contained in this report.
- I assume that the use of the land and improvements exists within the confines of the boundaries or property lines of the property described and that there is no encroachment or trespass unless noted in the report.
- Unless otherwise stated in this report, I did not observe the existence of hazardous materials, which may or may not be present on the property. I have no knowledge of the existence of such materials on or in the property. However, I am not qualified to detect such substances. The presence of substances such as asbestos, urea-formaldehyde foam insulation and other potentially hazardous materials may affect the value of the property. I predicated my value estimate on the assumption that there is no such material on or in the property. I assume no responsibility for such conditions or for any expertise or

ASSUMPTIONS AND LIMITING CONDITIONS

engineering knowledge required to discover them. I urge the intended user to retain an expert in this field, if desired.

- I based the forecasts, projections, and operating estimates contained herein on current market conditions, anticipated short-term supply and demand factors, and a continued stable economy. These forecasts are, therefore, subject to changes with future conditions.

I made this appraisal report subject to the following general limiting conditions:

- Any allocation of the total value estimated in this report between the land and the improvements applies only under the stated program of utilization. The separate values allocated to the land and buildings must not be used in conjunction with any other appraisal and are invalid if so used.
- Possession of this report, or a copy thereof, does not carry with it the right of publication.
- By reason of this appraisal, I am not required to give further consultation or testimony or to be in attendance in court with reference to the property in question unless arrangements have been previously made.
- Neither all nor any part of the contents of this report (especially any conclusions as to value, the identity of the appraiser, or the firm with which the appraiser is connected) shall be disseminated to the public through advertising, public relations, news, sales, or other media without the prior my written consent and approval.
- Any opinions of value provided in the report apply to the entire property, and any proration or division of the total into fractional interests will invalidate the opinion of value, unless such proration or division of interests has been set forth in the report.
- The Americans with Disabilities Act (ADA) became effective January 26, 1992. I have not made a specific compliance survey or analysis of the property to determine whether or not it is in conformity with the various detailed requirements of ADA. It is possible that a compliance survey of the property and a detailed analysis of the requirements of ADA would reveal that the property is not in compliance with one or more requirements of the act. If so, this fact could have a negative impact upon the value of the property. Since I have no direct evidence relating to this issue, I have not considered possible noncompliance with the requirements of ADA in estimating the value of the property.

I certify that, to the best of my knowledge and belief:

- The statements of fact contained in this report are true and correct.
- The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, impartial, and unbiased professional analyses, opinions, and conclusions.
- I have no present or prospective interest in the property that is the subject of this report and no personal interest or bias with respect to the parties involved.
- I have no bias with respect to the property that is the subject of this report or to the parties involved in this assignment.
- My engagement in this assignment was not contingent upon developing or reporting predetermined results.
- My compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
- I made a personal inspection of the property that is the subject of this report.
- Except for the component cost new estimate prepared by David A. Trommelen of Tromco Enterprises, L.L.C., no one provided me with significant real property appraisal assistance.
- The reported analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Appraisal Institute's Code of Professional Ethics and Standards of Professional Appraisal Practice, which include the Uniform Standards of Professional Appraisal Practice.
- The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.

Respectfully,

A handwritten signature in black ink, appearing to read "John J. Coyle". The signature is fluid and cursive, with the first name "John" being the most prominent part.

John J. Coyle 4th

PA General Appraiser # GA003567

Dated: May 1, 2009

ADDENDUM

Dec 10, 2003 2:43 PM

45.7563 P. 2

PLEASE RECORD AND RETURN TO
 Brendan Abstract Co., Inc.
 24 Louella Ct., Wayne, PA 19087
 (610) 682-2110 (ext. 101)

03-1232

Fee Simple Deed

03-1232FRANK

This Indenture Made the 10 day of December in the year of our Lord, two thousand and three (2003).

Between **WEST BEACH PROPERTIES, L.P., a Pennsylvania Limited Partnership**

(hereinafter called the Grantor), of the one part,

and **WILBUC ASSOCIATES, LLC, and CHARLES E. FRANK**

(hereinafter called the Grantees), of the other part.

Witnesseth That the said Grantor, for and in consideration of the sum of **ONE MILLION THREE HUNDRED TWENTY-FIVE THOUSAND DOLLARS (\$1,325,000.00)**

lawful money of the United States of America, unto him/her/them well and truly paid by the said Grantees, at or before sealing and delivery hereof, the receipt whereof is hereby acknowledged, has granted, bargained and sold, released and confirmed, and by these presents does grant, bargain and sell, release and confirm unto the said Grantees, their heirs, successors and assigns, an undivided seventy-five per cent (75%) interest unto **WILBUC ASSOCIATES, LLC**, its successors and assigns; and the remaining undivided twenty-five per cent (25%) interest unto **CHARLES E. FRANK**, his heirs and assigns; the whole being held as tenants in common;

ALL THAT CERTAIN lot or piece of ground known as:

4 HORNE DRIVE
 Borough of FOLCROFT
 County of DELAWARE
 Pennsylvania
 Parcel #20-00-01135-02

(SEE ATTACHED LEGAL DESCRIPTION)

RD BK03038-0109

2003165504

12/15/2003 09:58:43 AM
 FULLY PAID FOLCROFT TAX \$12,250.00 FOLCROFT TAX \$12,250.00

2003165504

THOMAS J. JUDGE SR. ROD

DT DEED

DELAWARE
 COUNTY

ALL THAT CERTAIN lot or piece of ground with the buildings and improvements thereon erected, SITUATE in the Borough of Folcroft, County of Delaware, State of Pennsylvania, as shown on a Plan of Property and Topographic Map for Wilbur C. Henderson, prepared by H. Gilroy Darnon Associates, Inc., Civil Engineers, Sharon Hill, Pennsylvania, dated December 28, 1967 last revised December 22, 1971 being bounded and described as follows:-

BEGINNING at a point in the center line of a certain 50 feet wide street (unnamed on above plan but known as Horne Drive), said point being located the following three courses and distances from the intersection of said center line of Horne Drive with the title center line of School Lane (80 feet wide): (1) along said center line of Horne Drive North 58 degrees 55 minutes 45 seconds East 180.49 feet to a point of curve; (2) on a 910.35 feet radius curving to the right the arc distance of 119.83 feet to a point of tangent; (3) North 66 degrees 28 minutes 15 seconds East 22.3 feet to said point of beginning; thence leaving Horne Drive North 23 degrees 31 minutes 45 seconds West 233 feet to a point; thence North 66 degrees 28 minutes 15 seconds East 294.84 feet to a point; thence South 23 degrees 49 minutes 7 seconds East 233 feet to a point in the said center line of Horne Drive, said point being the center of a 50 feet radius cul-de-sac; thence along said center line South 66 degrees 28 minutes 15 seconds West 296.02 feet to the first mentioned point and place of beginning.

BEING Lot No. 5 on said Plan, including a 15 feet wide strip of land at the Southwesterly side of the property.

Being Folio #20-00-01135-02

Being inter alia the same premises which Mary Narzikul also known as Mary C. Narzikul by Deed dated March 29, 2001 and recorded April 5, 2001 in Delaware County in Volume 2151 Page 1904 conveyed unto West Avenue Beach Properties, L.P., a Pennsylvania Limited Partnership, in fee.

Dec. 10. 2009 2:43PM

No. 7663 P. 3

Together with all and singular the buildings and improvements, ways, streets, alleys, driveways, passages, waters, water-courses, rights, liberties, privileges, hereditaments and appurtenances, whatsoever unto the hereby granted premises belonging, or in any wise appertaining, and the reversions and remainders, rents, issues and profits thereof, and all the estate, right, title, interest, property, claim and demand whatsoever of the said grantor, as well as law as in equity, of, in and to the same.

To have and to hold the said lot or piece of ground described with the buildings and improvements thereon erected hereditaments and premises hereby granted, or mentioned and intended to be so, with the appurtenances, unto the said Grantees, their heirs, successors and assigns, to and for the only proper use and behoof of the said Grantees, their heirs, successors and assigns forever, an undivided seventy-five per cent (75%) interest unto WTLBUC ASSOCIATES, LLC, its successors and assigns; and the remaining undivided twenty-five per cent interest (25%) unto CHARLES E. FRANK, his heirs and assigns; the whole being held as tenants in common;

And the said Grantor, for itself, its successors, executors and administrators does covenant, promise and agree, to and with the said Grantees, their heirs, successors and assigns, by these presents, that it, the said Grantor and its successors, all and singular the hereditaments and premises hereby granted or mentioned and intended so to be, with the appurtenances unto them, the said Grantees, their heirs, successors and assigns, against it, the said Grantor and its successors and against all and every person and persons whomsoever lawfully claiming or to claim the same or any part thereof, by from or under it, them to any of them shall and will

WARRANT and forever DEFEND.

In Witness Whereof, the party of the first part has hereunto caused these presents to be executed. Dated the day and year first above written.

Sealed and Delivered)
IN THE PRESENCE OF US.)

WEST BEACH PROPERTIES, L.P.,
a Pennsylvania limited partnership

BY:


KEN P. NARZIKUL, General Partner

Dec 10, 2003 2:43PM

No. 7663 P. 4

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF Delaware

On this, the 16 day of DEC, A.D. 2003, before me, a notary public for the Commonwealth of Pennsylvania, the undersigned Officer, personally appeared KEN P. NARZIKUL, General Partner of WEST BEACH PROPERTY, L.P. known to be (or satisfactorily proven) to be the person(s) whose name is/are subscribed to the within instrument and acknowledged that he/she/they executed the same for the purpose herein contained.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal.



Dennis J. Ryan
Notary Public
My Commission Expires

Grantor: WEST BEACH PROPERTIES, L.P.
A Pennsylvania limited partnership

DEED

Grantees: WILBUC ASSOCIATES, LLC and
CHARLES E. FRANK

PREMISES: 4 HORNE DRIVE
Folscroft Borough
Delaware County, PA

FOLIO NO.: 20-00-01135-02

MAIL TAX BILLS TO: 4 Horne Dr.
Folscroft, PA 19032

I hereby certify that the precise address of the grantees herein is:

4 Horne Dr., Folscroft, PA 19032
BY: E. Riley

Please record and return to:

BRENDAN ABSTRACT COMPANY
24 Louella Court
Wayne, PA 19087
610-688 9249
610-688 1320 fax
Our File No.: 93-1232FRANK

SECOND AMENDMENT TO LEASE

THIS IS AN AMENDMENT made this 10th day of September, 2006, between WILBUC ASSOCIATES ("Landlord") and NP PRECISION, INC. ("Tenant").

WITNESSETH:

WHEREAS, the parties entered into the Lease Agreement dated January 1, 2004 ("Lease") for approximately 35,279 +/- square feet of space known as 4 Horne Drive ("Building"), Delaware County, Commonwealth of Pennsylvania ("Demised Premises"); and

WHEREAS, by First Amendment to Lease, the parties wish to amended the address of the Building and amend the term of the Lease; and

WHEREAS, the parties wish to amend the security deposit, subject to the terms and conditions of the Lease and the terms and conditions set forth herein.

NOW, THEREFORE, the parties hereto, in consideration of the mutual promises and covenants contained herein and intending to be legally bound hereby, agree as follows:

Paragraph 33 of the Lease entitled "**Security Deposit**", is hereby deleted in its entirety and replaced with the following new paragraph:

Tenant has deposited with Landlord at the signing of this Lease, the sum of Fourteen Thousand Five Hundred Eighty Three and 33/100 Dollars (\$14,583.33) representing one (1) months' security for the faithful performance and observance by Tenant of the terms, provisions and conditions of this Lease. Tenant shall not be entitled to interest on any such security deposit. It is agreed that in the event Tenant defaults in respect of any of the terms, provisions and conditions of this Lease, including but not limited to the payment of rent and additional rent, Landlord may use, apply or retain the whole or any part of the security so deposited to the extent required for the payment of any rent and additional rent or any other sum as to which Tenant is in default or for any other sum as to which Tenant is in default or for any sum which Landlord may expend or may be required to expend by reason of Tenant's default in respect of any of the terms, covenants and conditions of this Lease, including but not limited to any damages or deficiency accrued before or after summary proceedings or other re-entry by the Landlord. In the event that Tenant shall fully and faithfully comply with all of the terms, provisions, covenants and conditions of this Lease, the security shall be returned to Tenant after the date fixed as the end of this Lease and after delivery of entire possession of the Demised Premises to the Landlord.

In the event of a sale of the land and building or leasing of the building, of which Demised Premises form a part, Landlord shall have the right to transfer the security to the vendee or lessee and Landlord shall thereupon be released by Tenant from all liability for the return of such security; and it is agreed that the provisions hereof shall apply to every transfer or assignment made of the security to a new Landlord.

Tenant further covenants that it will not assign or encumber or attempt to assign or encumber the monies deposited herein as security and that neither Landlord nor its successors or assigns shall be bound by any such agreement, encumbrance, attempted assignment or attempted encumbrance.

2. **Confession of Judgment Ratified.** Tenant hereby ratifies, confirms and grants again the warrant of attorney to confess judgment as stated in the Lease and ratifies, grants again and confirms its familiarity with such remedy.

3. **Lease Ratified.** Except as herein provided, all other terms and conditions of the Lease are hereby ratified and remain in full force and effect. To the extent, if any, that the terms of the Lease conflict with any of the modifications set forth herein, the modifications set forth herein shall control.

4. **Time is of the Essence.** Time is of the essence in performing the covenants contained herein.

IN WITNESS WHEREOF, the parties have hereunto duly executed this Amendment to the Lease the day and year first above written.

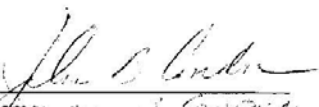
SEALED AND DELIVERED IN THE
PRESENCE OF:

LANDLORD:

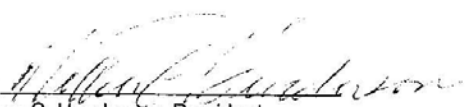
WILBUC ASSOCIATES

By: Meridian Realty Co., Inc., Managing Member

ATTEST:


Name: Wilbur C. Henderson
Title: President

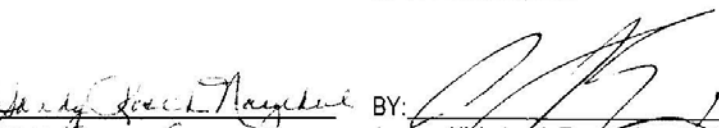
BY:


Wilbur C. Henderson, President

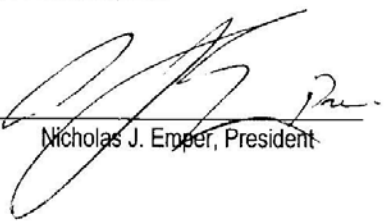
TENANT:

NP PRECISION, INC.

ATTEST:


Name: Nicholas J. Erpper
Title: Secretary

BY:


Nicholas J. Erpper, President

AMENDMENT NO. 1 TO THE LEASE

THIS IS AN AMENDMENT made this 11th day of December, 2003, between **WILBUC ASSOCIATES** ("Landlord") and **NP PRECISION, INC.** ("Tenant").

WITNESSETH:

WHEREAS, the parties entered into the Lease Agreement dated January 1, 2004 ("Lease") for approximately 35,279 +/- square feet of space known as 4 Horne Drive ("Building"), Delaware County, Commonwealth of Pennsylvania ("Demised Premises"); and

WHEREAS, the parties wish to amend the address of the Building and amend the term of the Lease, subject to the terms and conditions of the Lease and the terms and conditions set forth herein.

NOW, THEREFORE, the parties hereto, in consideration of the mutual promises and covenants contained herein and intending to be legally bound hereby, agree as follows:

1. Paragraph 1 of the Lease entitled "**Demised Premises**", is hereby amended by adding at the end thereof the following new paragraph:

Effective on January 1, 2004, the Demised Premises shall consist of, consisting of approximately 35,279 square feet in the 5 Horne Drive Building ("Building") in the County of Delaware, Commonwealth of Pennsylvania, ("Demised Premises").

2. Paragraph 2 of the Lease entitled "**Term**", is hereby amended by adding at the end thereof the following new paragraph:

Effective on January 1, 2004, the Lease for 5 Horne Drive shall be for a term of ten (10) years, commencing January 1, 2004 and ending December 31, 2013, under the terms and conditions of the Lease which is incorporated herein by reference.

3. Paragraph 3 of the Lease entitled "**Basic Rent**" is hereby amended by adding at the end thereof the following new paragraph:

Effective January 1, 2004 and ending December 31, 2005, the net Basic Rent ("Basic Rent") shall be One Hundred Seventy Five Thousand and 00/100 Dollars (\$175,000.00) per annum, lawful money of the United States of America, payable in monthly installments in advance during the term of this Lease, in sums of Fourteen Thousand Five Hundred Eighty Three and 33/100 Dollars (\$14,583.33), on the first day of each month, rent to begin on the first day of January, 2004, rent due and payable without demand or setoff at the office of Landlord (Attention: Accounting Department).

Effective January 1, 2006 and ending December 31, 2006, the net Basic Rent ("Basic Rent") shall be One Hundred Ninety Two Thousand Five Hundred and 00/100 Dollars (\$192,000.00) per annum, lawful money of the United States of America, payable in monthly installments in advance during the term of this

Lease, in sums of Sixteen Thousand and 00/100 Dollars (\$16,000.00), on the first day of each month, rent to begin on the first day of January, 2006.

Effective January 1, 2007 and ending December 31, 2008, the net Basic Rent ("Basic Rent") shall be Two Hundred Ten Thousand and 00/100 Dollars (\$210,000.00) per annum, lawful money of the United States of America, payable in monthly installments in advance during the term of this Lease, in sums of Seventeen Thousand Five Hundred and 00/100 Dollars (\$17,500.00), on the first day of each month, rent to begin on the first day of January, 2007.

Effective January 1, 2009 and ending December 31, 2013, the net Basic Rent ("Basic Rent") shall be Two Hundred Twenty Nine Thousand Three Hundred Thirteen and 50/100 Dollars (\$229,313.50) per annum, lawful money of the United States of America, payable in monthly installments in advance during the term of this Lease, in sums of Nineteen Thousand One Hundred Nine and 46/100 Dollars (\$19,109.46), on the first day of each month, rent to begin on the first day of January, 2009.

4. **Confession of Judgment Ratified.** Tenant hereby ratifies, confirms and grants again the warrant of attorney to confess judgment as stated in the Lease and ratifies, grants again and confirms its familiarity with such remedy.

5. **Lease Ratified.** Except as herein provided, all other terms and conditions of the Lease are hereby ratified and remain in full force and effect. To the extent, if any, that the terms of the Lease conflict with any of the modifications set forth herein, the modifications set forth herein shall control.

6. **Time is of the Essence.** Time is of the essence in performing the covenants contained herein.

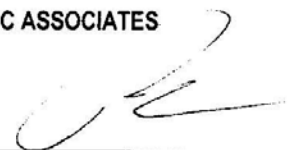
IN WITNESS WHEREOF, the parties have hereunto duly executed this Amendment to the Lease the day and year first above written.

SEALED AND DELIVERED IN THE
PRESENCE OF:

LANDLORD:

WILBUC ASSOCIATES

WITNESS: 

BY: 
Patrick G. Tomlinson, Partner

TENANT:

NP PRECISION, INC.

ATTEST: 

BY: 
Nicholas J. Emper, President

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LEASE AGREEMENT

THIS AGREEMENT, made the *16th* day of *December* two thousand and three (2003), by and between **WILBUC ASSOCIATES**, (hereinafter called the "Landlord") and **NP PRECISION, INC.**, a corporation, qualified to do business in Pennsylvania, (hereinafter called the "Tenant").

1. **Demised Premises.** Landlord does hereby demise and let unto Tenant all that certain area known as 4 Horne Drive ("Building"), consisting of approximately 35,279 square feet, in the Borough of Folcroft, the County of Delaware, Commonwealth of Pennsylvania, ("Demised Premises") as depicted on Exhibit "A", which is attached hereto and incorporated herein by reference, to be used and occupied as office, machine shop and warehouse space and for no other purpose.

2. **Term.** This Lease shall be for a term of five (5) years (hereinafter called "Demised Term") beginning the 1st day of January two thousand and four (2004) and ending the 31st day of December two thousand and eight (2008).

3. **Basic Rent.** Commencing January 1, 2004 and ending December 31, 2005, Tenant agrees to pay a net Basic Rent ("Basic Rent") in the sum of One Hundred Seventy Five Thousand and 00/100 Dollars (\$175,000.00) per annum lawful money of the United States of America, payable in advance during the Demised Term of this Lease, or any renewal hereof, in sums of Fourteen Thousand Five Hundred Eighty Three and 33/100 Dollars (\$14,583.33) on the first day of each month, rent to begin from the 1st day of January, 2004, the first installment to be paid at the time of signing this lease. Rent due and payable without demand or offset, at the office of Landlord's Agent, **The Henderson Group, Inc.**, (Attention: Accounting Department).

Commencing January 1, 2006 and ending December 31, 2006, Tenant agrees to pay a net Basic Rent ("Basic Rent") in the sum of One Hundred Ninety Two Thousand Five Hundred and 00/100 Dollars (\$192,500.00) per annum lawful money of the United States of America, payable in advance during the Demised Term of this Lease, or any renewal hereof, in sums of Sixteen Thousand and 00/100 Dollars (\$16,000.00) on the first day of each month, rent to begin from the 1st day of January, 2006.

Commencing January 1, 2007 and ending December 31, 2008, Tenant agrees to pay a net Basic Rent ("Basic Rent") in the sum of Two Hundred Ten Thousand and 00/100 Dollars (\$210,000.00) per annum lawful money of the United States of America, payable in advance during the Demised Term of this Lease, or any renewal hereof, in sums of Seventeen Thousand Five Hundred and 00/100 Dollars (\$17,500.00) on the first day of each month, rent to begin from the 1st day of December, 2007.

4. **Net Lease.** It is the intent of the parties hereto that this is a net lease, and that all costs of ownership, maintenance and use of the Demised Premises, shall be paid by Tenant in addition to the payments of Basic Rent specified above, provided furthermore, Tenant shall be responsible for structural repairs to the exterior foundation, roofs, the plumbing in common areas and/or outside of the Building, and exterior walls including the exterior of, and the frames surrounding all windows, doors, plate glass, store fronts, signs at its cost, and repairs to the Common Areas at the cost of the Tenants of the Building. Said

repairs by Tenant will be made within a reasonable time after notice from Landlord.

5. Improvement of Demised Premises.

a. "As-Is". Tenant is leasing the Demised Premises on as "As-Is" basis. Tenant represents that it has inspected the Demised Premises and is satisfied with its present condition. Tenant agrees that it will be responsible to pay all costs for repair and maintenance of the Demised Premises from the date of execution of this Lease, including maintenance and repair of the interior plumbing, electricity, hot water and HVAC systems in the Demised Premises.

6. Inability to Give Possession. Intentionally deleted.

7. Additional Rent.

(a) Breach. Tenant agrees to pay as rent in addition to the Basic Rent any and all sums which may become due by reason of the failure of Tenant to comply with all of the covenants of this Lease and any and all damages, costs and expenses, including attorney's fees, which the Landlord may suffer or incur by reason of such default, and also any and all damages to the Demised Premises caused by any act or neglect of the Tenant.

(b) Taxes, Assessments, Etc. Tenant will duly promptly pay as additional rent to Landlord, as the same shall become due and payable and before they become delinquent, all taxes, rates, assessments and other governmental charges, and charges of every kind and nature whatsoever, nonrecurring as well as recurring, special or extraordinary as well as ordinary, foreseen and unforeseen, and each and every installment thereof, which shall or may during the term of the Lease be levied, assessed or imposed, or become due and payable or become liens upon, or arise in connection with the use, occupancy or possession of, or any interest in, the Demised Premises, or upon the rents, issues, income and profits therefrom so as to prevent the same from becoming or being an enforceable lien or claim against the property or the interest of Landlord ("Expenses"). Tenant's prorata share of the full amount of the Expenses, shall mean that Tenant shall pay the amount full amount of the Expense as invoiced by the governmental body without credit for any discount rate. Such Expenses shall include all real estate taxes, assessments, water and sewer charges which may become liens upon the Demised Premises or any part thereof. If Landlord requests Tenant to pay such Expenses other than to Landlord, Tenant will furnish or cause to be furnished to Landlord not less than fifteen (15) days prior to the date on which payment of the same would become delinquent, or subject to penalty or interest, receipts or other evidence satisfactory to Landlord of the payment of all such Expenses. If Landlord requests in writing, Tenant shall pay to Landlord, or as Landlord may direct, such Expenses in advance in installments as estimated and determined by Landlord, and deposited with Landlord, or as directed by Landlord, for payment of all such Expenses when the same may become due and payable. Notwithstanding the foregoing, Tenant shall not be responsible for gross receipts or other income taxes incurred by Landlord on the rents received hereunder unless it is imposed in lieu of another charge for which Tenant is responsible hereunder.

If the Tenant deems excessive or illegal any such Expenses, with the written consent of the Landlord, the Tenant may make payment under protest. Any contest, whether before or after payment, may be made in the name of the Landlord or the Tenant or both, with the written consent of the Landlord. If requested by Tenant, Landlord may, but shall not be required to participate in any such contest, but the Tenant shall be entitled to any refund of any such Expenses, and any penalty or interest thereon which may have been paid by the Tenant, but all costs in connection with such contest shall be borne by the Tenant.

In case of failure of the Tenant to make any of the payments to be made by Tenant for such Expenses, the Landlord may, but shall not be required to, pay the amount of same, with penalty and interest thereon, if any. The amount so paid by the Landlord, with interest thereon from the date of payment thereof by the Landlord, shall be added to and become a part of the next installment of rent.

If at any time during the term of this Lease the methods of taxation prevailing at the commencement of the term hereof shall be altered so that in lieu of or as a supplement to or a substitute for the whole or any part of the real estate taxes or assessments now levied, assessed or imposed (1) a tax, assessment, levy, imposition or charge, wholly or partially as a capital levy or otherwise, on the rents received therefrom or (2) a tax, assessment, levy (including but not limited to any municipal, state or federal levy), imposition or charge measured by or based in whole or in part upon the Demised Premises and imposed upon the Landlord, or (3) a license fee measured by the rent payable under this Lease, then all such taxes, assessments, levies or impositions and charges, or the part thereof so measured or based shall be deemed to be included in the general real estate taxes and assessments payable by the Tenant pursuant hereto to the extent that such taxes, assessments, levies, impositions and charges would be payable if the Demised Premises were the only property of the Landlord subject thereto, and the Tenant shall pay and discharge the same as herein provided in respect of the payment of general real estate taxes and assessments.

(c) Insurance. Landlord shall keep all buildings and improvements now or hereafter erected upon the Demised Premises, insured for the benefit of Landlord against loss by fire and other casualties and hazards usually covered by extended coverage insurance in an amount not less than the replacement value of the Demised Premises (excluding foundations and other parts below the surface of the lowest floor), as determined not more than once annually by an appraiser or rating bureau satisfactory to Landlord. Tenant agrees that it will, throughout the Demised Term, pay and discharge as additional rent, the cost incurred by Landlord in insuring the Demised Premises as above stated. Insurance premiums at the beginning and end of the term shall be apportioned. It is expressly understood and agreed that if for any reason attributable to Tenant it shall be impossible to obtain Fire insurance on the building and improvements on the Demised Premises in an amount and in the form and with fire insurance companies acceptable to the Landlord, the Landlord may, if the Landlord elects, (a) terminate this Lease and the term thereof on giving to the Tenant fifteen (15) days' notice in writing of Landlord's intention so to do and upon the giving of such notice this lease and the terms thereof, shall terminate and come to an end; (b) compute the additional costs for such insurance over and above the standard cost as if the condition attributable to Tenant did not exist and Tenant shall be obligated to pay all of such additional cost.

(1) Tenant shall also provide at its sole cost and expense, any insurance on improvements made to or inside the Demised Premises by Tenant. Such policy shall name as insured Landlord and Tenant, as their interests may appear and shall name Landlord's first mortgagee, if any, as mortgagee. A copy of such policy shall be furnished to Landlord and Landlord's first mortgagee.

(2) Tenant at its own cost and expense will provide and keep in force during the Demised Term of this Lease commercial general liability insurance covering at least the hazards of "premises-operations", "elevators" (if applicable) and "independent contractors", in which Landlord shall be included as a named insured, in such other limits of liability as may be required by Landlord from time to time, but not less than One Million Dollars (\$1,000,000.00) combined single limit, with a deductible not to exceed Five Thousand Dollars (\$5,000.00). Such insurance shall cover not only the Demised Premises but shall also include all elevators, hoists, hallways, entranceways, stairs or any other common areas (exterior or interior), streets, driveways, alleys, lawns, parking and loading areas, sidewalks and curbs adjacent thereto.

(3) All such policies shall contain provision for notice to the said Landlord not less than ten (10) days in advance of any cancellation or material change of such policy. In case of failure of the Tenant to make premium payments when due, the Landlord may pay the amount of any such premiums, which amount with interest thereon from the date of payment by Landlord shall be added to and become part of the next installment of rent.

(4) Copies of renewal policies or certificates for any insurance required under this Paragraph shall be deposited by Tenant with Landlord at least ten (10) days prior to the expiration of existing policies, and upon failure so to do Landlord may immediately purchase, for the account of Tenant, the necessary insurance from any reputable insurance company without notice to Tenant, and Tenant shall reimburse Landlord for cost thereof within ten (10) days after demand.

(5) All insurance required hereunder shall be issued by companies licensed to do business in Pennsylvania and acceptable to Landlord. Tenant shall have the right to carry the insurance provided for in this Paragraph, or any portions of such insurance under a blanket or comprehensive all-risks policy.

(6) Personal Property Insurance. Tenant shall maintain, at its expense, insurance on all of its personal property, including removable trade fixtures, located in the Demised Premises.

(d) Utilities. Tenant further agrees to pay as additional rent all charges for water, sewer, gas, oil, electricity, light, heat, power, telephone or other utility used by Tenant at the Demised Premises during the Demised Term. Where necessary in the opinion of the Landlord, water meters may be installed by Landlord at the expense of Tenant. All charges for installation or repairs to the said water meter or meters on the Demised Premises, whether such repairs are made necessary by ordinary wear and tear, freezing, hot water, accident, or other causes, shall be payable by Tenant as additional rent and shall be paid immediately when the same become due.

(e) Miscellaneous. Tenant agrees to pay as additional rent its pro-rata share of all charges for street repairs, signage repairs, sewer and water line repair, exterior janitorial service, snow removal, grounds maintenance and landscaping, parking lot maintenance, fences and site lighting.

8. Time, Place and Withholding of Payment. Unless provided otherwise herein, all Basic Rent and additional rent shall be payable in advance without prior notice or demand and without any set off or deduction whatsoever at the office of Landlord (or at such other place as Landlord may from time to time designate by notice in writing) and at such times provided for the payment of the Basic Rent. Under no circumstances will Tenant be permitted to withhold rent for any reason. All payments of rent by Tenant may be applied to Basic Rent, Additional Rent, interest or penalties, if any, as Landlord deems appropriate.

9. Affirmative Covenants of Tenant. Tenant covenants and agrees that it will without demand:

(a) Interference and Waste. Conduct its business in such a manner as not to interfere with or be a nuisance to the conduct of the Landlord's business or that of any of Landlord's other tenants, and shall not allow any noxious odors or vapors to be emitted from the Demised Premises. Landlord agrees that it will conduct its business so as not to interfere with that of the Tenant. Use of explosives, flammables and/or corrosive agents and other like materials is not approved unless authorized by Landlord in advance. Any cleaning agent apparatus will be installed and vented to the outside at Tenant's cost and only if installation is approved in writing in advance by Landlord. Tenant shall not engage in activities that waste the Demised Premises.

(b) Maintenance and Repair. Keep the Demised Premises and improvements erected thereon in good condition and repair, including all plumbing, heating, electrical and air conditioning systems and any loading facilities including loading doors and dock bumpers. Tenant at its own expense shall enter into a maintenance contract ("Maintenance Contract") with a heating and air conditioning repair service acceptable to Landlord for the Demised Term and shall provide Landlord with a copy of same. The specifications for the Maintenance Contract are attached hereto as Exhibit "C". The Tenant shall permit the Landlord or Landlord's duly authorized agents to enter upon the Demised Premises and the buildings and improvements thereon erected at any reasonable time, and from time to time, for the purpose of inspecting and appraising the same. The Tenant shall comply with all orders, regulations, rules and requirements of every kind and nature relating to the Demised Premises, now or hereafter in effect, of the Federal, State, Municipal or other governmental authorities having power to enact, adopt, impose or require the same, whether they be usual or unusual, ordinary or extraordinary, and whether they or any of them relate to structural changes or requirements of whatever nature, or to changes or requirements incident thereto, or as the result of the use or occupation thereof by Tenant, and the Tenant shall pay all costs and expenses incidental to such compliance, and shall indemnify and save harmless the Landlord from all expense, and damages by reason of any notices, orders, violations or penalties filed against or imposed upon the Demised Premises or against the Landlord as owner thereof, because of the failure of the Tenant to comply with this covenant. Tenant further agrees to keep the Demised Premises clean and free from all ashes, dirt and other refuse matter; replace all glass windows, doors, etc., which are broken; and keep all waste and drain pipes open.

In the event of the failure of Tenant promptly to perform the covenants of Paragraph 9(b) hereof, Landlord may go upon the Demised Premises and perform such covenants, the cost thereof, at the sole option of Landlord, to be charged to Tenant as additional and delinquent rent.

(c) Compliance. Comply with any requirements of any of the constituted public authorities, and with the terms of any State or Federal statute or local ordinance or regulation applicable to Tenant or its use of the Demised Premises and save Landlord harmless from penalties, fines, costs or damages resulting from failure so to do.

(d) Fire. Use every reasonable precaution against fire.

(e) Rules and Regulations. Comply with reasonable rules and regulations of Landlord promulgated as hereinafter provided (See attached Exhibit "D").

(f) Surrender of Demised Premises. Peacefully deliver up and surrender possession of the Demised Premises to Landlord at or prior to the expiration or earlier termination of this Lease or any renewal thereof in the same good order and broom clean condition in which Tenant has herein agreed to keep the same during the continuance of this Lease. Tenant will at or prior to the expiration or earlier termination of this Lease or any renewal thereof remove all of his property from the Demised Premises so that Landlord may again have and repossess the same not later than noon on the day on which this Lease or the renewal thereof shall terminate, and will immediately thereafter deliver to Landlord at its office all keys for the Demised Premises.

(g) Notice of Casualty. Give to Landlord prompt written notice of any accident, fire, or damage occurring on or to the Demised Premises.

(h) Agency for Leasing. Not vacate or desert the Demised Premises during the Demised Term, or any renewal term, nor permit same to be empty and unoccupied without permission of Landlord. If, with the permission in writing of Landlord, Tenant shall vacate or decide at any time during the Demised Term to vacate the herein Demised Premises prior to the expiration of this Lease, or any renewal hereof, Tenant will not cause or allow any other agent to represent Tenant in any subletting or reletting of the Demised Premises other than an agent approved by the Landlord, and that should Tenant do so, or attempt to do so, the Landlord, may remove any signs that may be placed on or about the Demised Premises by such other agent without any liability to Landlord or to said agent, the Tenant assuming all responsibility for such action.

(i) M.S.D.S. Supply Landlord with copies of the Material Safety Data Sheets ("MSDS") as defined in the Worker and Community Right to Know Act, 35 P.S. Section 7301 et. seq. ("Right to Know Act"), for all substances used in the Demised Premises, within ten (10) days of first receipt of the material in the Demised Premises. Further, Tenant shall comply with all of the provisions of the Right to Know Act, including, but not limited to, retaining copies of the MSDS in the Demised Premises for inspection during regular business hours.

10. **Negative Covenants of Tenant.** Tenant covenants and agrees that he will do none of the following things without the consent in writing of Landlord first had and obtained:

(a) Use. Occupy the Demised Premises in any other manner or for any other purpose than as above set forth.

(b) Assignment, Etc. Assign this Lease or hypothecate or mortgage the same or sublet the Demised Premises or any part thereof. Any assignment, transfer, hypothecation, mortgaging or subletting without the written consent of the Landlord shall be void. The following shall be considered a violation of this covenant:

(1) filing of a petition by or against the Tenant under Chapter 7, 11 or 13 of Title 11, United States Code, Bankruptcy, as now or hereafter amended or supplemented, or the filing of any petition by or against (and if against not dismissed within thirty (30) days) the Tenant under any future bankruptcy act or state law for the same or similar relief;

(2) the dissolution or the commencement of any action or proceeding for the dissolution or liquidation of the Tenant, in connection with bankruptcy or other insolvency, whether instituted by or against (and if against not dismissed within thirty (30) days) the Tenant or for the appointment of a permanent receiver or a permanent trustee of all or substantially all the property of the Tenant;

(3) the taking possession of the property of the Tenant by any governmental officer or agency pursuant to statutory authority for the dissolution, rehabilitation, reorganization, or liquidation of the Tenant; or

(4) the making by the Tenant of any assignment for the benefit of creditors.

(c) Place or allow to be placed any stand, booth, or show case upon the doorsteps, vestibules or outside walls, pavements of said Demised Premises, or place, erect or cause to be placed or erected any projection or device on or in part of the Demised Premises. Tenant shall remove any projection or device placed or erected, if permission has been granted and restore the walls, etc., to their former conditions, at or prior to the expiration of this lease. In case of the breach of this covenant (in addition to all other remedies given to Landlord in case of the breach of any conditions or covenants of this Lease) Landlord shall have the privilege of removing said stand, booth, show case, projection or device, and restoring said walls, etc., to their former condition, and Tenant, at Landlord's option, shall be liable to Landlord as additional rent for any and all expenses so incurred by Landlord.

(d) Alterations and Improvements. Make any structural alterations, improvements, or additions to the Demised Premises. All alterations, additions and improvements (except trade fixtures, furniture and equipment other than building equipment but including electrical installations, plumbing installations, heating units, cooling and/or refrigeration units, fire and burglar alarms and associated

detection devices and related wiring, communication equipment and lighting fixtures) which may be made or installed by Tenant upon the Demised Premises shall upon the making or installation thereof be and become a part of the Demised Premises and shall remain upon and be surrendered with the Demised Premises as a part thereof at the termination of this Lease, unless Landlord shall, prior to the termination of this Lease, have given written notice to Tenant to remove the same, in which event Tenant will remove such alterations, improvements, and additions and restore the Demised Premises to the same good order and condition in which they now are. Should Tenant fail so to do, Landlord may do so, collecting, at Landlord's option, the cost and expense thereof from Tenant as additional rent.

(e) Machinery. Use or operate any machinery that, in Landlord's opinion, is harmful to the Demised Premises or building of which the Demised Premises is a part.

(f) Weights. Place any weights in any portion of the Demised Premises beyond the safe carrying capacity of the structure.

(g) Removal. Remove, attempt to remove or manifest an intention to remove Tenant's goods or property from or out of the Demised Premises otherwise than in the ordinary and usual course of business, without having first paid and satisfied Landlord for all rent then due.

(h) Vacation. Vacate or desert the Demised Premises during the Demised Term, or permit the same to be empty and unoccupied without the permission of Landlord.

(i) Recordation. Record this Lease. If Tenant violates this covenant, Tenant hereby irrevocably authorizes, empowers and designates Landlord as its lawful attorney for the purpose of having said Lease marked satisfied of record.

11. **Landlord's Rights**. Tenant covenants and agrees that Landlord shall have the right to do the following things and matters in and about the Demised Premises:

(a) Inspection. At all reasonable times by himself or his duly authorized agent to go upon and inspect the Demised Premises and every part thereof, and/or at his option to make repairs, alterations and additions to the Demised Premises or the building of which the Demised Premises is a part.

(b) Rules and Regulations. At any time or times and from time to time to make such reasonable rules and regulations as in his judgement may from time to time be necessary for the safety, care and cleanliness of the Demised Premises, and for the preservation of good order herein. Such rules and regulations shall, when notice thereof is given to Tenant, form a part of this Lease.

(c) For Sale or Rent. To display a "For Sale" sign at any time and also, after notice from either party of intention to terminate this Lease, or at any time within three months prior to the expiration of this Lease, a "For Rent" sign, or both "For Rent" and "For Sale" signs; and all of said signs shall be placed upon such part of the Demised Premises as Landlord may elect and may contain such matter as Landlord shall require. Prospective purchasers or tenants authorized by Landlord may inspect the Demised

Premises at reasonable hours at any time.

(d) Discontinuance of Facilities and Services. The Landlord may discontinue all facilities furnished and services rendered, or any of them by Landlord, not expressly covenanted for herein, it being understood that they constitute no part of the consideration for this Lease.

12. Responsibility of Tenant. Landlord shall not in any event be responsible, and the Tenant hereby specifically assumes responsibility for any personal or bodily injury or death of any persons (including employees of Tenant and Landlord) and damage, destruction, or loss of use of any property, including the Demised Premises (except as specifically provided otherwise herein) occasioned by any event happening on or about the Demised Premises, hallways, entranceways, stairs or any other common areas (exterior or interior), elevators, hoists, streets, driveways, parking and loading areas, alleys, lawns, sidewalks and curbs adjacent thereto including those resulting from any work in connection with any alterations, changes, new construction or demolition, except if same results solely from the negligence of Landlord, its agents, servants, or employees. Tenant is subrogated to any rights of Landlord against any other parties in connection therewith. Tenant shall defend, indemnify and hold harmless Landlord from and against any and all claims, demands, suits, damages, liability and costs (including counsel fees and expenses) arising out of or in any manner connected with any act or omission, negligent or otherwise of Tenant, third persons, or any of their agents, servants or employees which arise out of or are in any way connected with the erection, maintenance, use, operation, existence or occupation of the Demised Premises, hallways, entranceways, stairs or any other common areas (exterior or interior), elevators, hoists, streets, driveways, parking and loading areas, alleys, lawns, sidewalks and curbs adjacent thereto unless due solely to the negligence of Landlord, its agents, servants or employees.

The Landlord shall promptly notify the Tenant of any claim asserted against the Landlord on account of any such injury or claimed injury to persons or property and shall promptly deliver to the Tenant the original or a true copy of any summons or other process, pleading or notice issued in any suit or other proceeding to assert or enforce any such claim. The Tenant shall have the right to defend any such suit with attorneys of its own selection and the Landlord shall have the right, if it sees fit, to participate in such defense.

Tenant further shall defend, indemnify and hold harmless Landlord from claims, demands, suits, liability for damages for personal or bodily injury or death of any persons or damage or destruction of any property (including loss of use thereof) caused by or in any manner arising out of any breach, violation or nonperformance by Tenant of any covenant, term or provision of this Lease.

13. Damage to Demised Premises.

(a) In the event that the Demised Premises is totally destroyed or so damaged by fire or other casualty not occurring through fault or negligence of the Tenant or those employed by or acting for him, that, in Landlord's judgment, the same cannot be repaired or restored within one hundred eighty (180) days, this Lease shall absolutely cease and determine, and the rent shall abate as of the date of casualty for the balance of the term.

(b) If the damage caused as above be only partial and such that the Demised Premises, in Landlord's judgment, can be restored within one hundred eighty (180) days, the Landlord may, at its option, restore the same, excluding fixtures and improvements owned by Tenant, with reasonable promptness, reserving the right to enter upon the Demised Premises for that purpose. The Landlord also reserves the right to enter upon the Demised Premises whenever necessary to repair damage caused by fire or other casualty to the building of which the Demised Premises is a part, even though the effect of such entry be to render the Demised Premises or a part thereof untenable. In either event the rent shall be apportioned and suspended during the time the Landlord is in possession, taking into account the portion of the Demised Premises rendered untenable and the duration of the Landlord's possession. If a dispute arises as to the amount of rent due under this clause, Tenant agrees to pay the full amount claimed by Landlord. Tenant shall, however, have the right to proceed by law to recover the excess payment, if any.

(c) In the event that Landlord does not notify Tenant that in the Landlord's judgement, the damage cannot be repaired within 180 days, or in the event that Landlord fails to notify Tenant if Landlord exercises its election to repair the damage within 180 days, then Tenant shall have the right to give notice to Landlord, after the expiration of 30 days from the date of damage, that unless Landlord advises Tenant within 10 days after receipt of such notice that Landlord intends to complete the repair of the damage to the Demised Premises within 180 days from the date of the damage, it shall be deemed conclusive that Landlord has elected not to complete said repairs, and the Tenant may elect to terminate the Lease, commencing the 11th day after such notice, at any time prior to the receipt of notice from Landlord of its election to repair the damage to the Demised Premises.

(d) Notwithstanding the fact that Landlord may have given notice of election to repair the Demised Premises, if the mortgagee chooses to accelerate the mortgage due to damage by fire or other casualty to the Demised Premises or the building of which the Demised Premises is a part, Landlord shall have the right to rescind and/or cancel said election to repair and shall have the right to elect not to repair the damaged to the Demised Premises or the building of which the Demised Premises is a part, provided said notification of election not to repair is given to Tenant within thirty (30) days after date of the receipt of said notice of acceleration.

(e) Landlord shall not be liable for any damage, compensation or claim by reason of inconvenience or annoyance arising from the necessity of repairing any portion of the building, the interruption in the use of the Demised Premises, or the termination of this Lease by reason of the destruction of the Demised Premises.

14. Miscellaneous Agreements and Conditions.

(a) Non-Waiver by Landlord or Tenant. The failure of the Landlord or Tenant to insist upon strict performance of any of the covenants or conditions to this Lease, or to exercise any option herein conferred in any one or more instances, shall not be construed as a waiver or relinquishment for the future of any such covenants or conditions of this Lease or option, but the same shall be and remain in full

force and effect.

(b) Accord and Satisfaction. No payment by Tenant or receipt by Landlord of a lesser amount than the monthly rent herein stipulated shall be deemed to be other than on account of the earliest stipulated rent, nor shall any endorsement or statement on any check or any letter accompanying any check or payment as rent be deemed an accord and satisfaction, and Landlord may accept such check or payment without prejudice to Landlord's right to recover the balance of such rent or pursue any other remedy herein.

(c) Jurisdiction and Law. Tenant hereby subjects itself to the jurisdiction of the Court of Common Pleas of Delaware County, Pennsylvania. The laws of the Commonwealth of Pennsylvania shall be applicable to this lease and any interpretations thereof.

(d) The Landlord has let the Demised Premises in its present condition and without any representations on the part of Landlord, his officers, employees, servants and/or agents.

(e) In the event that it is determined at any time during the Demised Term of this Lease and any renewal period that the Tenant's proposed use of the Demised Premises as set forth in Paragraph 1 is not permissible under the local Zoning Ordinance or Regulations, then Tenant shall have the privilege of terminating this Lease on the last day of any month thereafter, provided that at least sixty (60) days prior to the termination date notice is given to Landlord in writing and such privilege shall be Tenant's sole remedy against Landlord in such event.

15. Remedies of Landlord. If the Tenant:

(a) Does not pay within five (5) days after it is due any and all installments of rent and/or any other charge or payment herein reserved, included, or agreed to be treated or collected as rent and/or any other charge, expense, or cost herein agreed to be paid by the Tenant; or

(b) Violates or fails to perform or otherwise breaks any non-monetary covenant or agreement herein contained which is not corrected in compliance within twenty (20) days after the notice; or

(c) Vacates the Demised Premises or removes or attempts to remove or manifests an intention to remove any goods or property therefrom otherwise than in the ordinary and usual course of business without having first paid and satisfied the Landlord in full for all rent and other charges then due; or

(d) Files or has filed against it (and if against not dismissed in thirty (30) days) a petition under Title 11, United States Code, Bankruptcy, as now or hereafter amended or supplemented, whether under Chapter 7, 11 or 13 of the aforesaid Bankruptcy Code; or if there is the commencement of any action or proceeding under state or federal law for the dissolution or liquidation of the Tenant in connection with bankruptcy or other insolvency, whether instituted by or against (and if against not dismissed in thirty

(30) days) the Tenant or for the appointment of a receiver or trustee of all or substantially all of the property of the Tenant; or if there is the taking of possession of the property of the Tenant by any governmental officer or agency pursuant to statutory authority for the dissolution, rehabilitation, reorganization or liquidation of the Tenant; or if there is the making by the Tenant of an assignment for the benefit of creditors;

Then and in any of said events, there shall be deemed to be a breach of this Lease, and thereupon Landlord shall have the following rights:

(1) To accelerate the whole or any part of the Basic Rent and additional rent (sometimes collectively referred to herein as "Rent") and other charges, payments, costs and expenses herein agreed to be paid by Tenant for the entire unexpired balance of the term of this Lease, and any Rent, other charges, payments, costs and expenses if so accelerated shall, in addition to any and all installments of Rent already due and payable and in arrears, and/or any other charge, expense or cost herein agreed to be paid by Tenant which may be due and payable and in arrears, be deemed due and payable as if, by the terms and provisions of this Lease, such accelerated Rent and other charges, payments, costs and expenses were on that date payable in advance.

(2) To enter the Demised Premises and without further demand or notice proceed to distrain and sell the goods and personal property there found, to levy the Rent and Tenant shall pay all costs and officers' commissions, including watchmen's wages and sums chargeable to Landlord, and further including the five percent (5%) chargeable by the Act of Assembly as commissions to the constable or other person making the levy, and in such case all costs, officers' commissions and other charges shall immediately attach and become part of the claim of Landlord for Rent, and any tender of rent without said costs, commissions and charges made, after the issuance of a warrant of distress, shall not be sufficient to satisfy the claim of Landlord. Tenant specifically waives any requirement of notice before distraint.

(3) To re-enter the Demised Premises and remove all persons and all or any property therefrom, either by summary dispossession proceedings or by any suitable action or proceeding at law, or by force or otherwise, without being liable to indictment, prosecution or damages therefor, and repossess and enjoy the Demised Premises, together with all alterations, fixtures, signs and other installations of Tenant. Upon recovering possession of the Demised Premises by reason of or based upon or arising out of a default on the part of Tenant, Landlord may, at Landlord's option, either terminate this Lease or make such alterations and repairs as may be necessary in order to relet the Demised Premises and relet the Demised Premises or any part or parts thereof, either in Landlord's name or otherwise, for a term or terms which may at Landlord's option be less than or exceed the period which would otherwise have constituted the balance of the term of this Lease and at such rent or rents and upon such other terms and conditions as in Landlord's sole discretion may seem advisable and to such person or persons as may in Landlord's discretion seem best; upon each such reletting all rents received by Landlord from such reletting shall be applied: first, to the payment of any indebtedness other than rent due hereunder from Tenant to Landlord; second, to the payment of any costs and expenses of such reletting, including brokerage fees and attorney's fees and all costs of such alterations and repairs; third, to the payment of Rent due and unpaid hereunder; and the residue, if any, shall be held by Landlord and applied in payment

of future Rent as it may become due and payable hereunder. If such rentals received from such reletting during any month shall be less than that to be paid during that month by Tenant hereunder, Tenant shall pay any such deficiency to Landlord. Such deficiency shall be calculated and paid monthly. No such re-entry or taking possession of the Demised Premises or the making of alterations and/or improvements thereto or the reletting thereof shall be construed as an election on the part of Landlord to terminate this Lease unless written notice of such intention be given to Tenant. Landlord shall in no event be liable in any way whatsoever for failure to relet the Demised Premises or, in the event that the Demised Premises or any part or parts thereof are relet, for failure to collect the rent thereof under such reletting. Tenant, for Tenant and Tenant's successors and assigns, hereby irrevocably constitutes and appoints Landlord as Tenant's and Landlord's agent to collect the rents due and to become due under all subleases of the Demised Premises or any parts thereof without in any way affecting Tenant's obligation to pay any unpaid balance of Rent due or to become due hereunder. Notwithstanding any such reletting without termination, Landlord may at any time thereafter elect to terminate this Lease for such previous breach.

(4) To terminate this Lease and the term hereby created without any right on the part of Tenant to waive the forfeiture by payment of any sum due or by other performance of any condition, term or covenant broken. Whereupon Landlord shall be entitled to recover, in addition to any and all sums and damages for violation of Tenant's obligations hereunder in existence at the time of such termination, damages for Tenant's default in an amount equal to the greater of (i) amount of the Rent reserved for the balance of the Demised Term, as well as all other charges, payments, costs and expenses herein agreed to be paid by Tenant, all discounted at the rate of nine percent (9%) per annum to their then present worth, less the fair rental value of the Demised Premises for the remainder of said term, also discounted at the rate of nine percent (9%) per annum to its then present worth or (ii) three (3) months' rent, all of which amount shall be immediately due and payable from Tenant to Landlord as liquidated damages.

(5) If Tenant shall default in the payment of the Rent reserved or in the payment of any other sums due hereunder by Tenant, Tenant hereby authorizes and empowers any Prothonotary or attorney of any court of record to appear for Tenant in any and all actions which may be brought for said Rent and/or said other sums and to confess judgement against Tenant for all or any part of said Rent and/or said other sums, including but not limited to the amounts due from Tenant to Landlord under subsections (1), (2), (3) and/or (4) of this section; and for interest and costs, together with an attorney's commission for collection of ten percent (10%). The right to institute an action pursuant to Pennsylvania Rules of Civil Procedure and the authority to confess judgement granted herein shall not be exhausted by one or more exercises thereof, so long as each exercise refers or relates to separate sums, and successive complaints may be filed and successive judgements may be entered from time to time for separate sums as aforescribed, as or after they become due, as well as after the expiration of the original term and/or during or after expiration of any extension or renewal of this Lease.

(6) When this Lease and the term or any extension or renewal thereof shall have been terminated on account of any default by Tenant hereunder, and also when the term hereby created or any extension or renewal thereof shall have expired, it shall be lawful for any attorney of any court of record to appear as attorney for Tenant as well as for all persons claiming by, through or under Tenant, and to sign an agreement for entering in any competent court a confession of judgement in ejectment

against Tenant and all persons claiming by, through or under Tenant and therein confess judgement for the recovery by Landlord of possession of the Demised Premises, for which this Lease shall be his sufficient warrant; thereupon, if Landlord so desires, an appropriate writ of possession may issue forthwith, without any prior writ or proceeding whatsoever, and provided that if for any reason after such action shall have been commenced it shall be terminated and possession of the Demised Premises remain in or be restored to Tenant, Landlord shall have the right for the same default and upon any subsequent default or defaults, or upon the termination of this Lease or Tenant's right of possession as hereinbefore set forth, to bring one or more further confession of judgement actions as hereinbefore set forth to recover possession of the Demised Premises.

(7) In any confession of judgement of ejectment and/or for rent and/or other sums brought hereon, Landlord shall first cause to be filed in such action an affidavit made by Landlord or someone acting for Landlord, setting forth the facts necessary to authorize the entry of judgement of which facts such affidavit shall be prima facie evidence, and if a true copy of this Lease (and of the truth of the copy such affidavit shall be sufficient evidence) shall be filed in such suit, action or actions, it shall not be necessary to file the original as a warrant of attorney, any rule of Court, custom or practice to the contrary notwithstanding.

16. **Right of Injunctive Relief.** In the event of a breach or threatened breach by Tenant of any of the covenants or provisions hereof, Landlord shall have the right of injunction and the right to invoke any remedy allowed at law or in equity as if re-entry, summary proceedings and other remedies were not herein provided for.

17. **Rights Not Exclusive.** No right or remedy herein conferred upon or reserved to Landlord is intended to be exclusive of any other right or remedy herein or by law provided but each shall be cumulative and in addition to every other right or remedy given herein or now or hereafter existing at law or in equity or by statute.

18. **Waivers by Tenant.** Tenant expressly waives:

(a) The benefit of all laws, now or hereafter in force, exempting any goods on the Demised Premises or elsewhere from distraint, levy or sale in any legal proceedings taken by Landlord to enforce any rights under this Lease.

(b) The right to ten (10) days and/or fifteen (15) or thirty (30) days' notice required under certain circumstances by The Landlord and Tenant Act of 1951, as amended in 1995, Tenant hereby agreeing that seven (7) days' notice shall be sufficient in either or any such case.

19. **Calculations of Amounts Due.** For the purpose of calculating the accelerated Rent payable under paragraph (1) of Paragraph 15 (d) of this Article and the "Rent reserved for the balance of the term" of this Lease for the purposes of Paragraph (4) of Paragraph 15 (d) of this Article, the amount payable as Tenant's share of real estate taxes, Tenant's share of the cost of insurance on the Demised Premises and Tenant's share of common area maintenance expenses and any other charges for which Tenant is

responsible hereunder for the balance of the term hereof shall be equal to the sum of the highest amount paid or payable by Tenant in any calendar year for each of the foregoing items multiplied by the number of calendar years (including any fractional calendar year) remaining in the term of this Lease.

20. **Right of Assignee of Landlord.** The right to pursue the remedies herein provided against Tenant and to enforce all of the other provisions of this Lease may, at the option of any assignee of this Lease, be exercised by any assignee of the Landlord's right, title and interest in this Lease in his, her or their own name, any statute, rule of court, custom, or practice to the contrary notwithstanding.

21. **Remedies Cumulative.** All of the remedies hereinbefore given to Landlord and all rights and remedies given to it by law and equity shall be cumulative and concurrent. No termination of this Lease or the taking or recovering of the Demised Premises shall deprive Landlord of any of its remedies or actions against Tenant for rent or sums due at the time or which, under the terms hereof, would in the future become due as if there has been no termination; nor shall the bringing of any action for rent or breach of covenant, or the resort to any other remedy herein provided for the recovery of rent be construed as a waiver of the right to obtain possession of the Demised Premises.

22. **Condemnation.** If at any time during the Demised Term or any renewal or extension thereof the Demised Premises, or any portion thereof, be lawfully condemned or conveyed in lieu of condemnation, the Landlord shall be entitled to, and shall receive the award or payment therefor, and the Tenant shall assign, and does hereby assign and transfer to the Landlord such award or payment as may be made therefor. Tenant, however, shall be entitled to make a claim for damages payable specifically and solely to a business Tenant under the terms of the Eminent Domain Code of Pennsylvania, Act of June 22, 1964, P.L. 84, as now or hereafter amended, provided that any award to Tenant shall not in any way diminish the Landlord's award. This Lease shall, as to the part so taken terminate as of the date title shall vest in the condemnor, and rent shall abate in proportion to the square feet of the leased space taken or condemned. In the event, however, that more than thirty percent (30%) of the Demised Premises (exclusive of Common Areas) is taken, Tenant shall have the option of terminating this Lease upon thirty (30) days prior written notice to Landlord.

23. **Execution of Estoppel Certificate.** At any time, and from time to time, upon the written request of Landlord or any first mortgagee, Tenant within twenty (20) days of the date of such written request agrees to execute and deliver to Landlord and/or such first mortgagee, without charge and in a form satisfactory to Landlord and/or such mortgagee, a written statement: (a) ratifying this Lease; (b) confirming the commencement and expiration date of the term of this Lease and the minimum annual rental rate payable during the lease term; (c) certifying that Tenant is in occupancy of the Demised Premises, and that the Lease is in full force and effect and has not been modified, assigned, supplemented or amended except by such writings as shall be stated; (d) certifying that all conditions and agreements under this Lease to be satisfied or performed by Landlord have been satisfied and performed except as shall be stated; (e) certifying that Landlord is not in default under the Lease and there are no defenses or offsets against the enforcement of this Lease by Landlord or stating the defaults and/or defenses claimed by Tenant; (f) reciting the amount of advance rent, if any, paid by Tenant and the date to which such rent has been paid and, if requested by Landlord and/or Mortgagee, agreeing that Tenant shall not pay rent to

Landlord more than thirty days in advance; (g) reciting the amount of security deposited with Landlord, if any; (h) certifying that Tenant has no option or right of first refusal to purchase the Demised Premises or option to extend the term of the Lease (unless specifically set forth to the contrary in the Lease); (i) if requested by Landlord and/or Mortgagee, agreeing that the Lease will not be modified without the prior written consent of the Mortgagee; (j) certifying that tenant will not generate, store, handle or otherwise deal with any amount of any hazardous substances or hazardous waste (as defined in federal, state and local law) in or about the Demised Premises, in excess of those levels or quantities specified for regulatory purposes; (k) agreeing, if requested by Mortgagee, that Tenant will give Mortgagee such notice of any default by Landlord and reasonable opportunity to cure such default, not in excess of thirty (30) days, unless the default cannot be cured within said time, before exercising Tenant's remedies under the Lease; and (l) any other information which Landlord or the mortgagee shall require.

24. **Failure to Execute Estoppel Certificate.** The failure of Tenant to execute, acknowledge and deliver to Landlord and/or any first mortgagee a statement in accordance with the provisions of Paragraph 23 above within the said twenty (20) day period shall constitute acknowledgement by Tenant which may be relied upon by any person holding or intending to acquire any interest whatsoever in the Demised Premises that this Lease has not been assigned, amended, changed, or modified, is in full force and effect and that the Basic Rent and additional rent have been duly and fully paid not beyond the respective due dates immediately preceding the date of the request for such statement and shall constitute as to any persons entitled to rely on such statements a waiver of any defaults by Landlord or defenses or offsets against the enforcement of this Lease by Landlord which may exist prior to the date of the written request, and Landlord at its option, may treat such failure as a deliberate event of default.

25. **Subordination and Attornment.** Tenant agrees:

(a) that, except as hereinafter provided, this Lease is, and all of Tenant's rights hereunder are and shall always be, subject and subordinate to any first mortgage ("First Mortgage"); and

(b) That if the holder of any such First Mortgage ("Mortgagee") or if the purchaser at any foreclosure sale or at any sale under a power of sale contained in any Mortgage shall at its sole option so request, Tenant will attorn to, and recognize such mortgagee or purchaser, as the case may be as Landlord under this Lease for the balance then remaining of the term of this Lease, subject to all terms of this Lease; and

(c) That the aforesaid provisions shall be self-operative and no further instrument or document shall be necessary unless required by any such First Mortgagee or purchaser. Notwithstanding anything to the contrary set forth above, any First Mortgagee may at any time subordinate its Mortgage to this Lease, without Tenant's consent, by notice in writing to Tenant, and thereupon this Lease shall be deemed prior to such Mortgage without regard to their respective dates of execution, delivery and/or recording and in that event such First Mortgagee shall have the same rights with respect to this Lease as though this Lease had been executed and a memorandum thereof recorded prior to the execution, delivery and recording of the Mortgage and as though this Lease had been assigned to such First Mortgagee. Should Landlord or any First Mortgagee or purchaser desire confirmation of either such subordination or

such attornment, as the case may be, Tenant upon written request, and from time to time, will execute and deliver without charge and in form satisfactory to Landlord, the First Mortgagee or the purchaser all instruments and/or documents that may be requested to acknowledge such subordination and/or agreement to attorn, in recordable form.

26. **Failure to Execute Instruments and Documents.** In the event Tenant fails to execute and deliver the instruments and documents as provided for in Paragraphs 23 and 25 within twenty (20) days after request in writing by Landlord or such First Mortgagee or purchaser, as the case may be, Tenant does hereby make, constitute and appoint Landlord or such First Mortgagee or purchaser, as the case may be, as Tenant's attorney-in-fact and in its name, place and stead to do so, or Landlord may treat such failure as a deliberate event of default. The aforesaid power of attorney is given as coupled with an interest and is irrevocable.

27. **Quiet Enjoyment; Eviction by Foreclosure.** Tenant, on paying the rent reserved, and performing all the covenants and conditions hereof, shall at all times during the Demised Term, peaceably and quietly have, hold and enjoy the Demised Premises; provided, however, eviction of the Tenant by reason of the foreclosure of any First Mortgage now or hereafter on the Demised Premises shall not be construed as a breach of this covenant, nor shall any action by reason thereof be brought against the Landlord; and provided further, that no eviction of the Tenant for any reason whatsoever, after the Landlord shall have conveyed the fee of the Demised Premises shall be construed as a breach of this covenant, and no action therefor shall be brought against the Landlord.

28. **Termination of Lease.** It is hereby mutually agreed that either party hereto may terminate this Lease at the end of the Demised Term by giving to the other party written notice thereof at least 180 days prior thereto, but in default of such notice, this Lease shall continue upon the same terms and conditions in force immediately prior to the expiration of the Demised Term hereof as are herein contained except for Basic Rent which shall be adjusted to reflect the then current market rates for space comparable to the Demised Premises as determined by Landlord based upon other of Landlord's rental properties, for a further period of one year and so on from year to year unless or until termination by either party hereto, giving the other 180 days written notice for removal previous to expiration of the then current term; PROVIDED, however, that should this Lease be continued for a further period under the terms herein-above mentioned, any allowances given Tenant on the Basic Rent during the original term shall not extend beyond such original term. In the event that Tenant shall give notice, as stipulated in this Lease, of intention to vacate the Demised Premises at the end of the Demised Term, or any renewal or extension thereof, and shall fail or refuse so to vacate the same on the date designated by such notice, then it is expressly agreed that Landlord shall have the option either:

(a) To disregard the notice so given as having no effect, in which case all the terms and conditions of this Lease shall continue thereafter, as set forth above, with full force precisely as if such notice has not been given, or

(b) Landlord may, at any time within thirty days after the Demised Term or any renewal or extension thereof, as aforesaid, give the said Tenant ten days' written notice of his intention to terminate

the said Lease; whereupon the Tenant expressly agrees to vacate said Demised Premises at the expiration of the said ten day period.

All powers granted to Landlord by this lease may be exercised and all obligations imposed upon Tenant by this Lease shall be performed by Tenant as well during any extension of the Demised Term of this Lease as during the Demised Term itself.

29. **Notices.** All notices required shall be in writing given by certified mail, return receipt requested or by a recognized overnight delivery service:

TO LANDLORD:

TO TENANT: NP Precision, Inc.
4 Horne Drive
Folcroft, PA 19032

Attention: Nicholas J. Emper, President

Such address may be changed from time to time by either party by serving notices as above provided.

30. **Mechanic's Liens.**

(a) **Mechanic's Liens Prohibited.** Tenant shall not suffer any mechanic's lien to be filed against the Demised Premises by reason of work, labor, services or materials performed or furnished to Tenant or anyone holding the Demised Premises, or any part hereof, through or under Tenant. If any mechanic's lien or any notice of intention to file a mechanic's lien shall at any time be filed against the Demised Premises Tenant shall at Tenant's cost, within fourteen (14) days after knowledge or notice of the filing of any mechanic's lien cause the same to be removed or discharged of record by payment, bond, order of a court of competent jurisdiction, or otherwise.

(b) **Landlord's Remedy for Tenant's Breach.** If Tenant shall fail to remove or discharge any mechanic's lien or any notice of intention to file a mechanic's lien within the prescribed time, then in addition to any other right or remedy of Landlord, Landlord may, at its option, procure the removal or discharge of the same by payment or bond or otherwise. Any amount paid by Landlord for such purpose, together with all legal and other expenses of Landlord in procuring the removal or discharge or such lien or notice of intention and together with interest thereon at the highest permissible rate shall be and become due and payable by Tenant to Landlord as additional rent, and in the event of Tenant's failure to pay therefor within fifteen (15) days after demand, the same shall be added to and be due and payable with the next month's rent.

(c) Non-Consent of Landlord to Filing of Liens. Nothing contained in this Lease shall be construed as a consent on the part of Landlord to subject Landlord's estate in the Demised Premises to any lien or liability arising out of Tenant's use or occupancy of the Demised Premises.

31. Lease Contains All Agreements. It is expressly understood and agreed by and between the parties hereto that this Lease sets forth all the promises, agreements, and conditions or understandings between Landlord or his Agent and Tenant relative to the Demised Premises, and that there are no promises, agreements, conditions or understandings, either oral or written, between them other than are herein set forth. It is further understood and agreed that, except as herein otherwise provided, no subsequent alteration, amendment, change or addition to this Lease shall be binding upon Landlord or Tenant unless reduced to writing and signed by them.

32. Heirs and Assignees. All rights and liabilities herein given to, or imposed upon, the respective parties hereto shall extend to and bind the several and respective heirs, executors, administrators, successors and assigns of said parties; and if there shall be more than one Tenant, they shall all be bound jointly and severally by the terms, covenants and agreements herein, and the word "Tenant" shall be deemed and taken to mean each and every person or party mentioned as a Tenant herein, be the same one or more; and if there shall be more than one Tenant, any notice required or permitted by the terms of this Lease may be given by or to any one thereof, and shall have the same force and effect as if given by or to all thereof. The words "his" and "him" or "its" wherever stated herein, shall be deemed to refer to the "Landlord" or "Tenant" whether such Landlord or Tenant be singular or plural and irrespective of gender. No rights, however, shall inure to the benefit of any assignee of Tenant unless the assignment to such assignee has been approved by Landlord in writing as aforesaid.

33. Security Deposit. Tenant has deposited with Landlord at the signing of this Lease, the sum of Twenty Nine Thousand One Hundred Sixty Six and 67/100 Dollars (\$29,166.67) representing two (2) months' security for the faithful performance and observance by Tenant of the terms, provisions and conditions of this Lease. Tenant shall not be entitled to interest on any such security deposit. It is agreed that in the event Tenant defaults in respect of any of the terms, provisions and conditions of this Lease, including but not limited to the payment of rent and additional rent, Landlord may use, apply or retain the whole or any part of the security so deposited to the extent required for the payment of any rent and additional rent or any other sum as to which Tenant is in default or for any sum which Landlord may expend or may be required to expend by reason of Tenant's default in respect of any of the terms, covenants and conditions of this Lease, including but not limited to any damages or deficiency accrued before or after summary proceedings or other re-entry by the Landlord. In the event that Tenant shall fully and faithfully comply with all of the terms, provisions, covenants and conditions of this Lease, the security shall be returned to Tenant after the date fixed as the end of the Lease and after delivery of entire possession of the Demised Premises to the Landlord.

In the event of a sale of the land and building or leasing of the building, of which the Demised Premises form a part, Landlord shall have the right to transfer the security to the vendee or lessee and Landlord shall thereupon be released by Tenant from all liability for the return of such security; and it is

agreed that the provisions hereof shall apply to every transfer or assignment made of the security to a new Landlord.

Tenant further covenants that it will not assign or encumber or attempt to assign or encumber the monies deposited herein as security and that neither Landlord nor its successors or assigns shall be bound by any such agreement, encumbrance, attempted assignment or attempted encumbrance.

34. **Headings No Part of Lease.** Any headings preceding the text of the several paragraphs and subparagraphs hereof are inserted solely for convenience of reference and shall not constitute a part of this Lease nor shall they affect its meaning, construction or effect.

35. **Multitenanted Occupancy.** In the event Tenant is leasing a portion of a multitenant building with or without common areas, then Tenant shall be liable for payment of any taxes, charges, premiums, rates, or assessments payable under the terms of this Lease including, but not limited to those set forth in Sections 7(b), (c), and (e) herein for the Demised Premises and common areas, pro-rated based upon the ratio which the total number of leasable square feet of floor space in the Demised Premises bears to the total number of square feet of leasable floor space in the entire building as set forth below.

Tenant's Pro Rata Share: 100% (determined by dividing the area of the Demised Premises [35,279 rentable square feet] by the area of the building of which the Demised Premises is a part [35,279 square feet]).

36. **Late Payment.** In the event that any payment of Basic Rent or additional rent or any other charge required to be paid by Tenant under the provisions of this Lease, shall not be paid within five (5) days of the due date, Tenant shall pay to Landlord a late charge of five (5%) percent of such past due payment; and such late charge shall be deemed "rent" for all purposes under this Lease.

37. **Severability.** If a provision of this Lease Agreement is held invalid, it is hereby agreed that all valid provisions that are severable from the invalid provision remain in effect. If a provision in this Lease Agreement is held invalid in one or more of its applications, the provision remains in effect in all valid applications.

38. **Landlord's Liability.** Anything to the contrary herein notwithstanding, Landlord's liability for any damages or assessments hereunder shall be limited solely to Landlord's interest in the Demised Premises or land and building of which the Demised Premises is part, as the case may be. It is further covenanted and agreed by the parties hereto that in no case shall the Landlord be liable for any consequential damages.

39. **Signage.** Tenant shall have the right to place neat, professionally executed signs at the front entrance and/or loading areas as shall adequately advertise Tenant's occupancy of the Demised Premises and direct visitors, guests and the like to Tenant's Demised Premises provided that they comply with any and all laws and ordinances applicable thereto. Tenant shall not place any sign on any part of the Building without the written consent of Landlord, which consent Landlord shall not unreasonably withhold.

40. Landlord's Environmental Clause.

(a) Tenant shall not (either with or without negligence) cause or permit the escape, disposal or release of any biologically or chemically active or other hazardous substances or materials. Tenant shall not allow the storage or use of such substances or materials in any manner not sanctioned by law or by the highest standards prevailing in the industry for the storage and use of such substances except to use in the ordinary course of Tenant's business, and then only after written notice is given to Landlord of the identity of such substances or materials. Without limitation, hazardous substances and materials shall include those described in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, 42 U.S.C. Section 9601 et seq., any applicable state or local laws and the regulations adopted under these acts. If any lender or governmental agency shall ever require testing to ascertain whether or not there has been any release of hazardous materials, then the reasonable costs thereof shall be reimbursed by Tenant to Landlord upon demand as additional charges if such requirement applies to the Demised Premises. In addition, Tenant shall execute affidavits, representations and the like from time to time at Landlord's request concerning Tenant's best knowledge and belief regarding the release or discharge of hazardous substances or materials onto or from the Demised Premises during the term of the Lease. In all events, Tenant shall indemnify Landlord in the manner elsewhere provided in this lease from any release of hazardous materials on the Demised Premises occurring while Tenant is in possession, or elsewhere if caused by Tenant or persons acting under Tenant. The within covenants shall survive the expiration or earlier termination of the lease term.

(b) Tenant shall conduct all of its operations at the Demised Premises in compliance with all federal, state and local statutes (including, but not limited to the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Section 9601 et. seq, as amended by the Superfund Amendments and Reauthorization Act of 1986, Pub. L. No. 99-499, 100 Stat. 1613 (October 17, 1986) ("CERCLA"); the Resources Conservation and Recovery Act, 42 U.S.C. Section 6901 et. seq. ("RCRA"); the Pennsylvania Solid Waste Management Act, 35 Pa.C.S. Section 6018.101 et. seq.; the Pennsylvania Clean Streams Law, 35 Pa.C.S. Section 691.1 et. seq.; and the Pennsylvania Hazardous Sites Cleanup Act, Act 108 of 1988, 35 Pa.C.S. Section 6020.101 et. seq. ("Pennsylvania Superfund"), the Clean Air Act, 42 U.S.C. Section 7401 et. seq., as amended by the Clean Air Act Amendments of 1990, the Clean Water Act, 33 U.S.C. Section 1251 et. seq., and all applicable federal, state and local statutes related to the environment now or hereafter enacted and any additions and amendments thereto and regulations enacted thereunder, ordinances, regulations, orders and requirements of common law, regarding, but not limited to, (i) discharges to the air, soil, surface or groundwater; and (ii) handling, utilizing, storage, treatment or disposal of any hazardous substances or toxic substances as defined therein ("Environmental Statutes"). Tenant shall obtain all permits, licenses or approvals and shall make all notifications and registrations required by Environmental Statutes and shall submit to Landlord, upon request, for inspecting and copying all documents, permits, licenses, approvals, manifests and records required to be submitted and/or maintained by the provisions of the Environmental Statutes. Tenant shall also provide promptly to Lessor copies of any correspondence, notice of violation, summons, order, complaint or other document received by Tenant pertaining to compliance with Environmental Statutes.

(c) Tenant shall not install at the Demised Premises any temporary or permanent tanks for the storage of any liquid or gas above or below ground except as in compliance with the other provisions of this section and after obtaining written permission to do so from Landlord.

(d) If, because of the manner in which Tenant operates its business, the Landlord, Landlord's mortgage lender or a governmental agency shall require testing by an environmental testing entity of its choice, to ascertain whether there has been a release of Hazardous Materials by Tenant, its agents, servants, employees or business invitees, in or around the Demised Premises, the reasonable costs of such testing shall be reimbursed by Tenant to Landlord as Additional Rent.

(e) Tenant hereby agrees to indemnify Landlord and to hold Landlord harmless of, from and against any and all expense, loss, cost, fines, penalties, loss of value or liability suffered by Landlord by reason of Tenant's breach of any of the provisions of this section.

(f) The provisions of this section shall survive the termination of Tenant's tenancy or of this Lease.

41. Relocation. Intentionally deleted.

42. Option to Purchase. So long as Tenant is not in default of the Lease, Landlord grants to Tenant the option to purchase the Demised Premises under and subject to the following terms and conditions:

(a) Said option shall be exercisable, if at all, by ^{12/31/06} Tenant giving Landlord written notice no sooner than six (6) months prior to the expiration of the third year of the Lease. Said exercise shall be in writing, and notice thereof shall be sent by certified mail to the address for which rent payable under the Lease is delivered. The terms of the agreed of purchase are as set forth in this option.

(b) Closing shall be held after the expiration of the third year of the Lease term ("Closing"). In the event that Closing is held on a date other than the first day of the month, rent, additional rent and other charges due for the Demised Premises shall be apportioned to the date of Closing.

(c) The purchase price for the Demised Premises for the day on which the purchase shall be closed is as follows:

1. One Hundred Sixty Thousand and 00/100 Dollars (\$160,000.00) or 10% of the total Purchase Price is due upon the exercising of this option and shall be held in an escrow account to be established by the Seller.

2. Tenant shall purchase the Demised Premises in an "As-Is" condition. Landlord shall not be responsible for making any repairs to the structure of the Demised Premises after the date of the exercise of the option.

3. Title to the Demised Premises shall be good and marketable and/or such as will be insured

by a reputable title company, subject to the following:

(a) All title objections generally appearing on the printed portion of the exceptions of the title report.

(b) All easements, restrictions, ordinances, privileges or rights of public service companies, if any, existing as of the date hereof.

(c) Any easements or restrictions created by Landlord for the benefit of properties Landlord or its affiliates owns or had owned in the .

(d) In the event that Landlord is unable to deliver title in accordance with the provisions hereof. Tenant shall have the option to accept such title as Landlord can deliver without any abatement in the purchase price.

4. The balance of the purchase price of One Million Four Hundred Four Thousand and 00/100 Dollars (\$1,440,000.00) shall be payable by Tenant at Closing by certified check, cashier's check or wire transfer, pursuant to the directions of Landlord. At the time of Closing, Landlord shall deliver a special warranty fee simple deed to Tenant or to an affiliate of Tenant, in accordance with Tenant's directions.

5. In the event of fire, other casualty or condemnation after the date of written notice of the exercise of the option, the obligation to buy and to sell the Demised Premises shall not be affected thereby. The Landlord shall assign the proceeds of any insurance claim or award or right to award for such damage or condemnation to the Tenant which are covered or will be covered as a result of such a fire, casualty or condemnation.

6. In the event that Tenant exercises its option in accordance herewith, but thereafter fails and/or refuses to close upon the purchase of the Demised Premises within the time provided herein, Tenant shall be in default of its obligation to purchase the Demised Premises. Said agreement to purchase the Demised Premises shall, at the option of Landlord, be terminated, and Landlord shall retain the deposit of ten percent (10%) of the purchase price as its sole remedy for such default.

7. Tenant shall not have the right to exercise the option or to close upon the purchase of the Demised Premises in the event it is in default in its obligations under the Lease, particularly with respect to the payment of rent, additional rent or other charges provided for in the Lease. In the event Tenant gives notice of the exercise of its option to purchase, and Tenant is in default under the Lease, Landlord shall give notice to Tenant of said default, and if Tenant does not cure said default within ten (10) days from the date of said notice, Tenant shall have forfeited its option to purchase the Demised Premises. In the event that Tenant is in default of its option under the Lease at the time of Closing, and does not cure said default on or before the date of Closing, Tenant shall be in default of the agreement to purchase, and the agreement may be terminated at the option of Landlord.

8. Time shall be of the essence in exercising the option and in closing the purchase.

43. Early Access. Tenant may have early access to Demised Premises upon completion of Landlord's settlement and purchase of the Demised Premises.

44. Time is of the Essence. Time is of the essence in performing the covenants contained herein.


IN WITNESS WHEREOF, the parties hereto have executed these presents the day and year first above written, intending to be legally bound hereby.

SEALED AND DELIVERED IN
THE PRESENCE OF:

LANDLORD:

WILBUC ASSOCIATES

WITNESS: _____

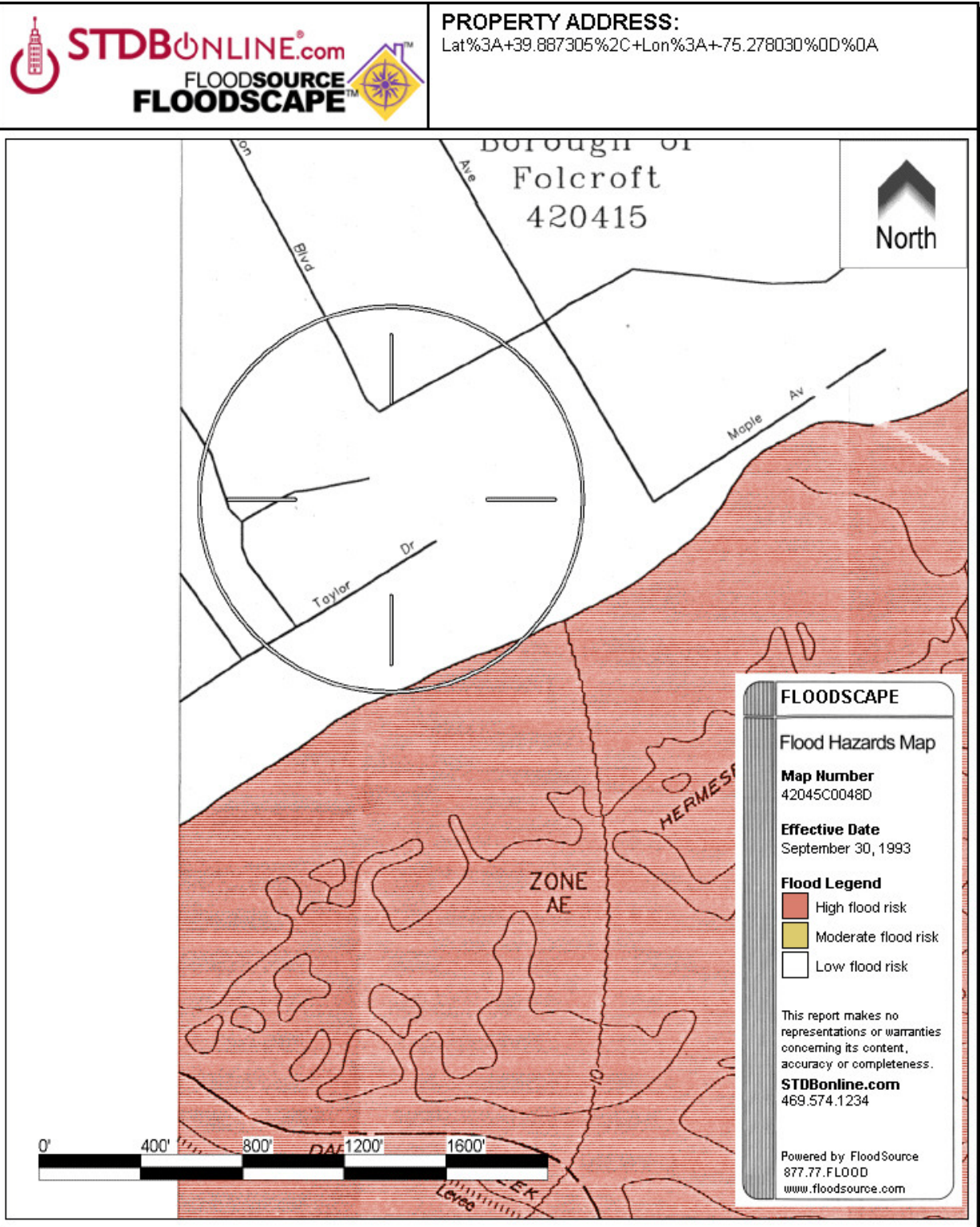
BY: 
Patrick G. Tomlinson, Partner

TENANT:

NP PRECISION, INC.

ATTEST: _____
Secretary

BY: 
Nicholas J. Emper, President



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Series 1959, No. 19

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SOIL SURVEY

Chester and Delaware Counties, Pennsylvania



UNITED STATES DEPARTMENT OF AGRICULTURE
Soil Conservation Service
In cooperation with
PENNSYLVANIA STATE UNIVERSITY
College of Agriculture and Agricultural Experiment Station
and the
PENNSYLVANIA DEPARTMENT OF AGRICULTURE
Soil Conservation Commission

3. Glenelg-Manor-Chester association:
Shallow to deep, silty and channery soils on grayish-brown schist and gneiss

This is the largest soil association in Chester and Delaware Counties. It occupies 393,000 acres and is in nearly all parts of the two counties. The soils range from level to steep, but the largest acreage is gently to moderately sloping.

The principal soils on uplands in this association are the Glenelg, Manor, Chester, Brandywine, Worsham, and Glenville. Less extensive are the Wehadkee, Chewacla, and Congaree soils on flood plains. These soils are underlain mainly by Wissahickon and Peters Creek schist and Baltimore gneiss.

The Glenelg soils are similar to the Chester soils but are shallower over parent material. The Chester soils are deep and well drained. They have a surface layer of dark-brown silt loam and a subsoil of strong-brown, light silty clay loam or silt loam. The Manor soils, developed from similar parent material, are shallow to partly weathered schist and are well drained. Brandywine soils are shallow and droughty. They have a surface layer of very dark gray loam and a subsoil of yellowish-brown, gritty sandy loam. The Brandywine soils developed chiefly from coarse-grained gneiss and pegmatite. The Worsham soils are poorly drained, and the Glenville are moderately well drained. They occur in low-lying areas and around the heads of streams.

Dairy farming and the raising of livestock predominate in this soil association. The crops that are grown are generally used to feed animals on the farms. The sloping soils are likely to erode and require protection to help control erosion. Most of the apple and peach orchards in Chester and Delaware Counties are within this soil association.

4. Hagerstown-Conestoga-Guthrie association:
Deep, silty soils on limestone

This soil association occupies 22,000 acres in Chester Valley. The valley is 1 to 2 miles wide. It extends across Chester County from the county line near Atglen northeast through Coatesville, Downingtown, and Valley Forge State Park to the eastern edge of the county. Several other areas of the association are scattered throughout Chester County, but the largest areas are near Avondale and Doe Run.

The major soils in this association are the Hagerstown, Conestoga, Guthrie, and Lawrence, but smaller areas of Bedford, Lindside, and Melvin soils are included. The soils are level to moderately sloping, but most of them are gently sloping. Nearly all of this soil association has been cleared and is used for cultivated crops.

The Hagerstown soils are deep and well drained. They have a surface layer of dark-brown silt loam and a subsoil of strong-brown silty clay loam. The Conestoga soils generally have a lighter texture than the Hagerstown soils, and they are somewhat lighter colored. Their substratum is fine sandy loam. The Guthrie, Lawrence, and Bedford soils are not so well drained as the Hagerstown and Conestoga soils, and they have mottling in the subsoil. The Lindside and Melvin soils are on flood plains.

Except for the Guthrie and Melvin soils, which are poorly drained, all of the soils in this association are

fairly well suited to crops. Much of the industrial and urban development in Chester County is within this association.

5. Neshaminy-Glenelg association: *Moderately deep and deep, well-drained, silty, channery, and gravelly soils on gabbro and granodiorite*

This soil association occupies 73,000 acres. The areas are scattered throughout Chester and Delaware Counties. The soils in this association are gently sloping to steep, but they are mainly moderately sloping. The areas of steep and stony soils are not extensive and are mostly wooded. The major soils in this association are the Neshaminy, Glenelg, Glenville, and Worsham, but there are smaller areas of Chewacla and Wehadkee soils.

The Neshaminy and Glenelg soils are deep to moderately deep and are well drained. They have a surface layer of dark-brown silt loam and a subsoil of reddish-brown silty clay loam. The substratum consists mostly of weathered gabbro and granodiorite. The channery nature of the soils retards erosion.

The Glenville and Worsham soils are not so well drained as the Neshaminy and Glenelg, and they have mottling in the subsoil. The Chewacla and Wehadkee soils are on flood plains.

General farm crops grow well on the soils in this association, but hay and pasture are the main crops.

6. Neshaminy-Chrome-Conowingo association: *Moderately deep and deep, silty soils on serpentine*

This soil association occupies 10,000 acres in Chester and Delaware Counties. The largest acreage is in the southwestern part of Chester County, known as the barrens. Another fairly large area is in Delaware County; it is about 2 miles west of Media and extends northeast toward Newtown Square. Others are scattered throughout the two counties.

The soils of this association are nearly level to very steep, but they are dominantly moderately sloping. The steep and very steep areas are wooded and consist mostly of Chrome soils.

The Neshaminy soils are deep and are well drained. They have a surface layer of dark yellowish-brown silt loam and a subsoil of yellowish-red silty clay loam. The Chrome soils have a dark grayish-brown, silty surface layer and a dark yellowish-brown, clayey subsoil. The Conowingo soils are deep and have mottling in the lower part of the subsoil. The Calvert and Aldino soils, also in this association, are deep and moderately deep. They are poorly drained and have mottling at or near the surface.

Much idle and abandoned land is in this soil association. General farm crops are grown on a few farms, but the soils are better suited to hay and pasture than to crops that require tillage.

7. Beltsville-Sassafras-Butlertown association: *Deep, silty or sandy soils on coastal plain sediments*

This soil association occupies 33,000 acres. The areas are in the southeastern section of Delaware County, adjoining the Delaware River.

The soils are nearly level to moderately sloping, but they are mostly gently sloping. The major soils are the Beltsville, Sassafras, and Butlertown, but there are some

areas of Woodstown soils and a few small areas of Othello soils.

The Beltsville soils are deep, moderately well drained, and have a fragipan. Their surface layer is dark grayish-brown silt loam, and their subsoil is yellowish-brown silty clay loam. The Sassafra soils, which are fairly sandy, are well drained, and the Butlertown and Woodstown soils are moderately well drained. The Othello soils are deep and poorly drained. They are mottled near the surface.

These soils are not extensive, and most of them are in areas where farming is done on a part-time basis. Many areas are idle and are likely to be developed as residential areas.

8. *Montalto-Watchung-Mount Lucas association: Deep, silty and channery soils on dark-gray diabase*

This soil association occupies 5,800 acres in the Triassic area in the northwestern part of Chester County. The soils are gently sloping to very steep, but most areas are moderately sloping and are very stony. These areas are forested.

The major soils of this association are the Montalto, Watchung, and Mount Lucas. There are smaller areas of Brecknock and Lehigh soils.

The Montalto soils are deep and well drained. They have a subsoil of dark-brown silt loam. The Watchung soils are deep; they are poorly drained and have a mottled surface layer. The Mount Lucas soils are moderately well drained and have a mottled subsoil. The Brecknock and Lehigh soils are deep. The Brecknock are well drained, and the Lehigh are moderately well drained. These soils are underlain by baked shale and sandstone.

This soil association is mostly wooded. A few small areas are cultivated, and other areas are pastured.

Use and Management of the Soils

This section has several parts. The first explains the system of capability classification used by the Soil Conservation Service. Then management of groups of soils, the capability units, are described. The next part gives estimated relative yields of the principal crops for each mapping unit. This is followed by a discussion of management of the soils for woodland, for wildlife, and for engineering. Finally, there is a discussion of the soils in relation to rural developments.

Capability Groups of Soils

The capability classification is a grouping of soils that shows, in a general way, how suitable they are for most kinds of farming. It is a practical grouping based on the limitations of the soils, on the risk of damage when they are used, and on the way they respond to treatment.

In this system all the kinds of soil are grouped at three levels, the capability class, subclass, and unit. The eight capability classes in the broadest grouping are designated by Roman numerals I through VIII. In class I are the soils that have few limitations, the widest range of use, and the least risk of damage when they are used. The soils in the other classes have progressively greater natural limitations. In class VIII are soils and landforms so rough, shallow, or otherwise limited that they do not

produce worthwhile yields of crops, forage, or wood products.

The subclasses indicate major kinds of limitations within the classes. Within most of the classes, there can be as many as four subclasses. The subclass is indicated by adding a small letter, *e*, *w*, *s*, or *c*, to the class numeral, for example, IIe. The letter *e* shows that the main limitation is risk of erosion unless close-growing plant cover is maintained; *w* means that water in or on the soil will interfere with the growth of plants or with cultivation (in some soils the wetness can be partly corrected by artificial drainage); *s* shows that the soil is limited mainly because it is shallow, droughty, or stony; and *c*, used in only some parts of the country, indicates that the chief limitation is a climate that is too cold or too dry.

In class I there are no subclasses, because the soils of this class have few or no limitations. Class V can contain, at the most, only subclasses *w*, *s*, and *c* because the soils in it have little or no susceptibility to erosion but have other limitations that limit their use largely to pasture, range, woodland, or wildlife.

Within the subclasses are the capability units, groups of soil enough alike to be suited to the same crops and pasture plants, to require similar management, and to have similar productivity and other responses to management. Thus, the capability unit is a convenient grouping of soils for many statements about their management. Capability units are generally identified by Arabic numbers assigned locally, for example, IIe-1 or IIIe-2.

Soils are classified in capability classes, subclasses, and units in accordance with the degree and kind of their permanent limitations. The grouping does not take into consideration major, and generally expensive, landforming that would change the slope, depth, or other characteristics of the soil. It also does not take into consideration possible, but unlikely, major reclamation projects.

The capability classes, subclasses, and units in which the soils of Chester and Delaware Counties are classified are defined in the listing that follows. The capability units fit into a nationwide system based on the potentialities and limitations of the soils for the most common farm crops and pasture plants. Other groupings are likely to be needed for other purposes.

Class I.—Soils that have a few limitations that restrict their use.

Unit I-1.—Deep, nearly level, well-drained soils of uplands.

Unit I-2.—Deep, level or nearly level, well-drained, silty soil of flood plains.

Class II.—Soils that have some limitations that reduce the choice of plants or that require moderate conservation practices.

Subclass IIe.—Soils subject to moderate erosion if they are not protected.

Unit IIe-1.—Deep, nearly level to gently sloping, well-drained soils on limestone.

Unit IIe-2.—Deep or moderately deep, nearly level to gently sloping, well-drained soils on acid materials.

Unit IIe-3.—Deep, gently sloping, well-drained soil on diabase.

Unit IIe-4.—Moderately deep, gently sloping, well-drained soils on quartzite.

Unit IIe-5.—Shallow to moderately deep, gently sloping, well-drained soils of uplands.

- Unit IIe-6.—Gently sloping, moderately well drained to somewhat poorly drained soils of uplands.
- Subclass IIw.—Soils that have moderate limitations because of excess water.
- Unit IIw-1.—Deep, nearly level, moderately well drained soils of uplands.
- Unit IIw-2.—Deep, nearly level, moderately well drained soils of flood plains.
- Subclass IIs.—Soils that have moderate limitations of moisture capacity or tilth.
- Unit IIs-1.—Shallow, nearly level, well-drained soil.
- Class III.—Soils that have severe limitations that reduce the choice of plants, or that require special conservation practices, or both.
- Subclass IIIe.—Soils subject to severe erosion if they are cultivated and not protected.
- Unit IIIe-1.—Deep, moderately sloping, well-drained soils on limestone.
- Unit IIIe-2.—Moderately deep or deep, gently sloping to moderately sloping, well-drained, acid soils.
- Unit IIIe-3.—Moderately deep, moderately sloping, well-drained soils.
- Unit IIIe-4.—Shallow to moderately deep, gently sloping to moderately sloping soils that are well drained.
- Unit IIIe-5.—Moderately sloping, moderately well drained to somewhat poorly drained soils.
- Subclass IIIw.—Soils that have severe limitations because of excess water.
- Unit IIIw-1.—Nearly level, somewhat poorly drained or poorly drained soils that have a slowly permeable subsoil.
- Unit IIIw-2.—Nearly level and gently sloping, moderately well drained to somewhat poorly drained soils of uplands.
- Class IV.—Soils that have very severe limitations that restrict the choice of plants, require very careful management, or both.
- Subclass IVe.—Soils subject to very severe erosion if they are cultivated and not protected.
- Unit IVe-1.—Deep, moderately sloping, well-drained soils on limestone.
- Unit IVe-2.—Moderately deep and deep, moderately sloping to moderately steep, well-drained soils.
- Unit IVe-3.—Deep, moderately sloping, well-drained soil on diabase.
- Unit IVe-4.—Shallow and moderately deep, gently sloping to moderately steep, well-drained soils.
- Unit IVe-5.—Moderately deep to somewhat shallow, nearly level or gently sloping, well-drained soils of uplands that are severely eroded.
- Subclass IVw.—Soils that have very severe limitations for cultivation because of excess water.
- Unit IVw-1.—Nearly level, poorly drained soils that have a tight, slowly permeable subsoil.
- Unit IVw-2.—Deep, gently sloping soil that is poorly drained.
- Class V.—Soils not likely to erode but that have other limitations, impractical to remove without major reclamation, that limit their use largely to pasture or range, woodland, or wildlife food and cover.
- Subclass Vw.—Soils too wet for cultivation; drainage or protection not feasible.
- Unit Vw-1.—Deep, nearly level, poorly drained to very poorly drained soils of uplands.
- Class VI.—Soils that have severe limitations that make them generally unsuitable for cultivation and that limit their use largely to pasture or range, woodland, or wildlife food and cover.
- Subclass VIe.—Soils severely limited, chiefly by risk of erosion if protective cover is not maintained.
- Unit VIe-1.—Moderately deep or deep soils that are moderately steep to steep and well drained.
- Unit VIe-2.—Shallow to moderately deep soils that are moderately sloping to steep and well drained.
- Subclass VIw.—Soils severely limited by excess water and generally unsuitable for cultivation.
- Unit VIw-1.—Deep, nearly level, poorly drained soils of flood plains.
- Unit VIw-2.—Gently sloping to moderately sloping, poorly drained soils that have a subsoil of tight clay.
- Subclass VIs.—Soils generally unsuitable for cultivation and limited for other uses by their moisture capacity, stones, or other features.
- Unit VIs-1.—Deep, nearly level to moderately steep, well-drained soils that are very stony.
- Unit VIs-2.—Deep, nearly level to moderately sloping, moderately well drained soils that are very stony.
- Class VII.—Soils that have very severe limitations that make them unsuitable for cultivation without major reclamation, and that restrict their use largely to grazing, woodland, or wildlife.
- Subclass VIIe.—Soils very severely limited, chiefly by risk of erosion, if protective cover is not maintained.
- Unit VIIe-1.—Shallow to moderately deep, moderately steep and steep, well-drained soils.
- Subclass VIIs.—Soils very severely limited by moisture capacity, stones, or other features.
- Unit VIIs-1.—Shallow to moderately deep, gently sloping to very steep, very stony soils.
- Unit VIIs-2.—Moderately deep to deep, nearly level to gently sloping soils that are somewhat poorly drained or poorly drained and very stony.
- Class VIII.—Soils and landforms that have limitations that preclude their use, without major reclamation, for commercial production of plants and that restrict their use to recreation, wildlife, water supply, or esthetic purposes.
- Subclass VIIIw.—Extremely wet or marshy land.
- Unit VIIIw-1.—Tidal marsh.

Management by Capability Units

Soils in one capability unit have about the same limitations and similar risks of damage. The soils in one unit, therefore, need about the same kind of management, though they may have formed from different kinds of parent material and in different ways. The capability units are described in the following pages. The soils in

each unit are listed, and management suitable for all the soils of one unit is suggested.

Capability unit I-1

In this unit are deep, nearly level, well-drained soils of uplands. The soils are moderately permeable and have moderately high to high available moisture capacity. They are moderate to moderately high in productivity and are easy to work. The following soils are in this unit:

Chester silt loam, 0 to 3 percent slopes.
Conestoga silt loam, 0 to 3 percent slopes.
Glenelg channery silt loam, 0 to 3 percent slopes.
Neshaminy gravelly silt loam, 0 to 3 percent slopes.
Sassafras loam, 0 to 3 percent slopes.

The soils of this unit are well suited to corn, small grain, alfalfa, red clover, bromegrass, orchardgrass, timothy, potatoes, tobacco, apples, peaches, and most of the vegetables commonly grown in the county. Keeping tillage to a minimum and turning under crop residues will improve the structure of these soils and help to prevent erosion. If the soils are used for tilled crops, a cover crop needs to be grown in winter and a sod crop of grass or of grasses and legumes should be grown every few years.

Capability unit I-2

Only one soil—Congaree silt loam—is in this unit. This deep, level or nearly level, well-drained, silty soil is on flood plains. It is highly productive and has high available moisture capacity and good tilth. The soil is subject to slight overflow for short periods late in winter and early in spring.

This soil is well suited to corn, small grain, alfalfa, red clover, ladino clover, timothy, and orchardgrass. Tobacco, potatoes, truck crops, and vegetables are grown in small areas. If a sod crop consisting of legumes and grasses is grown every few years, it will supply some organic matter and will help to improve the structure of this soil.

Capability unit II-1

In this unit are deep, nearly level to gently sloping, well-drained soils on limestone. The soils are silty and are moderately permeable. They are moderate to high in productivity and in available moisture capacity. These soils are easy to work and respond well to good management, but they are subject to moderate erosion. The following soils are in this unit:

Conestoga silt loam, 0 to 3 percent slopes, moderately eroded.
Conestoga silt loam, 3 to 8 percent slopes, moderately eroded.
Hagerstown silt loam, 0 to 3 percent slopes, moderately eroded.
Hagerstown silt loam, 3 to 8 percent slopes, moderately eroded.

These soils are well suited to corn, small grain, alfalfa, red clover, bromegrass, orchardgrass, tobacco, apples, and peaches. They are also suited to all of the vegetables commonly grown in the area.

Diversion terraces, contour stripcropping, or both, are needed on the gently sloping areas to help control runoff and erosion. Growing a crop of legumes and grasses every few years will help to reduce erosion. The legumes and grasses supply organic matter and improve the structure of the soil. Following a row crop with a cover crop also helps to protect the soils.

Capability unit II-2

This unit consists of deep or moderately deep, nearly level to gently sloping, well-drained soils on acid materials of the uplands. The soils are moderately permeable and have moderately high available moisture capacity. Most of them are moderately eroded and are moderate to moderately high in productivity. The following soils are in this unit:

Bucks silt loam, 3 to 8 percent slopes, moderately eroded.
Chester silt loam, 0 to 3 percent slopes, moderately eroded.
Chester silt loam, 3 to 8 percent slopes.
Chester silt loam, 3 to 8 percent slopes, moderately eroded.
Glenelg channery silt loam, 0 to 3 percent slopes, moderately eroded.
Glenelg channery silt loam, 3 to 8 percent slopes.
Glenelg channery silt loam, 3 to 8 percent slopes, moderately eroded.
Neshaminy gravelly silt loam, 3 to 8 percent slopes, moderately eroded.
Sassafras loam, 3 to 8 percent slopes, moderately eroded.

These soils are well suited to corn, small grain, alfalfa, red clover, bromegrass, timothy, orchardgrass, apples, and peaches. They are also suited to potatoes and to all the other vegetables commonly grown in the area.

Field terraces and diversion terraces are needed if tilled crops are grown on the gently sloping areas, or contour stripcropping and diversion terraces should be used. Legumes and grasses need to be grown often enough to help control erosion. They improve the structure of the soil and supply organic matter. Growing a cover crop after each row crop also helps to control erosion.

Capability unit II-3

Only one soil—Montalto channery silt loam, 3 to 8 percent slopes, moderately eroded—is in this unit. This deep, well-drained soil overlies diabase. It has moderately slow permeability and is subject to excessive runoff and erosion if it is not protected. The available moisture capacity is moderate, and the soil is moderately to highly productive.

This soil is suited to corn, small grain, alfalfa, red clover, bromegrass, timothy, and orchardgrass. It is also suited to apples and to all of the vegetables commonly grown in the area. The soil warms more slowly in spring than the soils of capability unit II-1. It also takes water more slowly and is more erodible.

If tilled crops are grown, this soil needs to be protected by contour stripcropping, field terraces, or diversion terraces. A winter cover crop should be grown after each row crop. A crop of legumes and grasses needs to be included in the cropping system often enough to help protect the soil from erosion. The legumes and grasses supply organic matter and improve the structure of the soil.

Capability unit II-4

In this unit are moderately deep, gently sloping, well-drained soils on quartzite. The soils are on uplands. They are moderately productive and have moderate available moisture capacity and moderate to moderately rapid permeability. The following soils are in this unit:

Edgemont channery loam, 3 to 8 percent slopes.
Edgemont channery loam, 3 to 8 percent slopes, moderately eroded.

These soils are suited to corn, small grain, timothy, and orchardgrass. Alfalfa can be grown, but the soils are less well suited to it than to red clover. Tomatoes and potatoes can be grown; in years when moisture is adequate, they make moderate yields. These soils are not suited to other vegetables.

If these soils are used for tilled crops, field terraces, diversion terraces, and contour stripcropping are needed to help control erosion. Growing a mixture of legumes and grasses every 2 or 3 years will also help control erosion. The legumes and grasses return organic matter to the soils and improve the structure. Following each row crop, a cover crop is needed to help protect the soils.

Capability unit IIe-5

This unit is made up of shallow to moderately deep, gently sloping, well-drained soils of uplands. The soils have moderate or moderately rapid permeability and moderately low available moisture capacity. The following soils are in this unit:

Brandywine loam, 3 to 8 percent slopes, moderately eroded.
Brecknock channery silt loam, 3 to 8 percent slopes, moderately eroded.
Chrome gravelly silty clay loam, 3 to 8 percent slopes, moderately eroded.
Hollinger silt loam, 3 to 8 percent slopes, moderately eroded.
Manor loam, 3 to 8 percent slopes, moderately eroded.
Penn silt loam, 3 to 8 percent slopes, moderately eroded.
Penn and Lansdale sandy loams, 3 to 8 percent slopes, moderately eroded.

These soils are fairly well suited to corn, small grain, alfalfa, red clover, timothy, and orchardgrass. Because they are low in available moisture capacity, yields are not high except in years of above-average rainfall. The soils are too droughty for high yields of bluegrass pasture. They are fairly well suited to apples, potatoes, and most of the vegetables commonly grown in the area.

If these soils are used for tilled crops, practices are needed to protect them from erosion. Diversion terraces and contour stripcropping are particularly well suited to that purpose. A crop of legumes and grasses needs to be grown often enough to help control erosion. The legumes and grasses return organic matter to the soils and improve the structure. Growing a winter cover crop after each row crop will also help to protect the soils.

Capability unit IIe-6

In this unit are gently sloping, moderately well drained to somewhat poorly drained soils of uplands. These soils are moderately permeable and have high available moisture capacity. They are moderate to moderately high in productivity. In places the soils have a tight layer in the subsoil that retards drainage. In other places there is a seasonally high water table. These soils are likely to heave in winter, and they are subject to erosion. The following soils are in this unit:

Bedford silt loam, 3 to 8 percent slopes.
Bedford silt loam, 3 to 8 percent slopes, moderately eroded.
Beltsville silt loam, 3 to 8 percent slopes, moderately eroded.
Butlertown silt loam, 3 to 8 percent slopes, moderately eroded.
Glenville silt loam, 3 to 8 percent slopes.
Glenville silt loam, 3 to 8 percent slopes, moderately eroded.
Readington silt loam, 3 to 8 percent slopes.
Readington silt loam, 3 to 8 percent slopes, moderately eroded.

These soils are suited to corn, alsike clover, ladino clover, orchardgrass, timothy, and small grain that is planted in

spring. They are not well suited to alfalfa, nor are they suited to small grain planted in fall, because those crops are likely to be killed in winter by heaving. The soils are slow to warm in spring and are not well suited to tree fruits, potatoes, or vegetables that require planting early in spring.

These soils need supplemental drainage for good yields of tilled crops. Tile can be used where adequate outlets are available. Open ditches or bedding can be used where tile drainage is not suitable. Practices are needed to help control erosion on fields that are tilled. Diversion terraces and graded stripcropping can be used to help protect the soils and to dispose of some of the excess water. A cropping system in which legumes and grasses are grown more of the time than tilled crops will also help to control erosion. The legumes and grasses supply organic matter and improve the structure of the soils.

Capability unit IIw-1

In this unit are deep, nearly level, moderately well drained soils of uplands. The soils are moderately permeable and have high available moisture capacity. They are moderately productive but are wet and slow to warm in spring. On long slopes the soils are likely to erode. The following soils are in this unit:

Bedford silt loam, 0 to 3 percent slopes.
Beltsville silt loam, 0 to 3 percent slopes.
Butlertown silt loam, 0 to 3 percent slopes.
Glenville silt loam, 0 to 3 percent slopes.
Readington silt loam, 0 to 3 percent slopes.
Woodstown loam, 0 to 3 percent slopes.

These soils are suited to alsike clover, ladino clover, orchardgrass, timothy, and small grain that is planted in spring. They are not well suited to alfalfa and small grain planted in fall, because those crops are likely to be killed in winter by heaving. The soils are not well suited to other vegetables commonly grown in the area.

These soils need supplemental drainage for good yields of tilled crops. Tile drains can be used if suitable outlets are available. The nearly level areas can be drained by bedding, and diversion terraces can be used to remove excess water that flows from higher areas. In some places graded stripcropping will help protect the soils from runoff and erosion.

Capability unit IIw-2

This unit consists of deep, nearly level, moderately well drained soils of flood plains. The soils are moderately permeable and have high available moisture capacity. They are moderately to highly productive. These soils are flooded occasionally for short periods, generally late in winter or early in spring. The following soils are in this unit:

Chewacla silt loam.
Lindside silt loam.
Rowland silt loam.
Rowland silt loam, dark surface.

Corn, small grain that is seeded in spring, alsike clover, ladino clover, orchardgrass, and timothy can be grown on these soils. The soils are too wet for alfalfa, small grain that is planted in fall, potatoes, or other vegetables commonly grown in the county.

In some places the soils may need supplementary drainage. Surface ditches can be used for that purpose.

at the back of the report to determine the suitability of the soils for various kinds of habitats. The kinds of habitat preferred by the various species of game are discussed in the following paragraphs.

Pheasant prefer large areas of fertile farmland, especially areas where corn or small grain is grown. Apparently, they do best on soils that are high in lime. The widespread practice of liming soils for agriculture may, therefore, influence pheasant to go into areas that normally would be poorly suited to them. Pheasant like grassy areas for nesting, but, generally, their numbers decrease where grassland farming is practiced.

Bobwhite are most abundant in areas where small fields that are planted to corn or small grain adjoin meadows and brushy areas. They are less numerous in areas where open farmland is extensive, in areas where grassland farming is practiced, or in mature forests. The mourning dove, on the other hand, thrives where there are large fields of corn and small grain.

Cottontail rabbit thrive in most habitats but are most abundant in brushy areas that are interspersed with patches of grass. They are least abundant in large areas that are cultivated or that have a dense cover of trees.

Gray squirrel generally prefer wooded areas where there are many oaks, hickories, and other trees that bear nuts. They are most abundant in woodlands that have a heavy undergrowth, but they generally prefer to live near the edges and openings of woods.

White-tailed deer generally like second- and third-growth hardwood forests, brushy areas, and the edges of open fields.

Engineering Applications

This soil survey for Chester and Delaware Counties, Pa., contains information that can be used by engineers to—

- (1) Make soil and land use studies that will aid in selecting and developing industrial, business, residential, and recreational sites.
- (2) Make estimates of the engineering properties of the soils for use in the planning of agricultural drainage systems, farm ponds, irrigation systems, and diversion terraces.
- (3) Make reconnaissance surveys of soil and ground conditions that will aid in selecting locations for highways and airports and in planning detailed soil surveys for the intended locations.
- (4) Locate sand and gravel for use in structures.
- (5) Correlate pavement performance with the types of soil and thus develop information that will be useful in designing and maintaining the pavements.
- (6) Determine the suitability of the various soil units for cross-country movements of vehicles and construction equipment.
- (7) Supplement information obtained from other published maps, reports, and aerial photographs for the purpose of making available information about soils that can be used readily by engineers.
- (8) Estimate the suitability of sites for the infiltration of waste from septic tanks.
- (9) Estimate the nature of material that would interfere with the construction and maintenance of pipelines.

The mapping and the descriptive report are somewhat generalized, and should be used only in planning more

detailed field surveys to determine the in-place condition of the soils at the site of the proposed engineering construction.

Some of the terms used by the soil scientist may not be familiar to the engineer, and some words—for example, soil, clay, silt, sand, granular, and aggregate—may have special meanings in soil science. These and other special terms that are used in the soil survey report are defined in the Glossary in the back of the report.

Soil test data

To be able to make the best use of the soil maps and the soil survey reports, the engineer should know the physical properties of the soil materials and the in-place condition of the soils. After testing the soil materials and observing their behavior when used in engineering structures and foundations, the engineer can develop design recommendations for the soil units delineated on the soil map.

Because information is needed about the properties of the soils as related to engineering, three tables are provided in this section. Table 5 gives test data for the soils of eight extensive series in Chester and Delaware Counties; table 6 gives a brief description of the soils with their estimated physical properties and their estimated AASHO and Unified classifications; and table 7 gives estimates of the suitability of the soils for highway construction and for conservation engineering.

To arrive at the test data given in table 5 and thus to help evaluate the soils for engineering purposes, soil samples of the main soil types in eight soil series were tested according to standard procedures of the American Association of State Highway Officials (AASHO). The results of these tests and the classification of each sample according to both the AASHO and the Unified systems are given in table 5. For the rest of the soils in the two counties, the data were compiled partly from reports of nearby counties where soils from the same soil series had been tested, and partly from evaluations made by soil scientists who were familiar with the characteristics of the soils in a particular series.

Although a soil from each of the eight series was sampled in three different localities and, as a result, the test data show some variations in physical characteristics, the data probably do not show the maximum variations in the B and C horizons of the soils within each series. All of the samples were obtained at a depth of 5 feet or less. The test data, therefore, may not be a suitable basis for estimating the characteristics of soil material in deep cuts in areas of rolling or hilly topography.

The data given in table 5 were obtained by mechanical analysis and by testing the soils to determine the liquid limits and plastic limits. Mechanical analyses were made by combining sieve and hydrometer methods. The percentages of clay obtained by the hydrometer method should not be used as a basis for naming the textural classes of soils.

The tests to determine the liquid limit and plastic limit measure the effect of water on the consistence of the soil material. As the moisture content of a clayey soil increases from a very dry state, the material changes from a solid to a semisolid or plastic state. As the moisture content is further increased, the material changes from the plastic to a liquid state. The plastic limit is the moisture content at which the soil material passes from a semisolid to a plastic state. The liquid limit is the moisture con-

tent at which the material passes from a plastic to a liquid state. The plasticity index is the numerical difference between the liquid limit and the plastic limit. It indicates the range of moisture content within which a soil material is in a plastic condition.

Table 5 also gives compaction (moisture-density) data for the tested soils. If a soil material is compacted at a successively higher moisture content, assuming that the compactive effort remains constant, the density of the compacted material increases until the optimum moisture content is reached. After that, the density decreases with increase in moisture content. The highest dry density obtained in the compaction test is termed maximum dry density. Data showing moisture density are important in earthwork, for, as a rule, optimum stability is obtained if the soil is compacted to about the maximum dry density when it contains approximately the optimum amount of moisture.

Engineering classification systems

Most highway engineers classify soil materials in accordance with the system approved by the American Association of State Highway Officials (1). In this system soil materials are classified in seven principal groups. The groups range from A-1, which consists of gravelly soils of high bearing capacity, to A-7, which consists of clay soils having low strength when wet. Within each group the relative engineering value of the soil material is indicated by a group index number. Group index numbers range from 0 for the best material to 20 for the poorest. The group index number is shown in parentheses, following the soil group symbol, in table 5.

Some engineers prefer to use the Unified soil classification system (9). In this system soil materials are identified as coarse grained, 8 classes; fine grained, 6 classes; and highly organic. The last column of table 5 gives the classification of the tested soils of Chester and Delaware Counties according to the Unified system.

Engineering interpretations

Some information helpful to engineers can be obtained from the detailed soil map and the general soil map. It will sometimes be necessary, however, to refer to other parts of the report. The section that would be most helpful is "Descriptions of Soils."

The descriptions of the soil profiles, as well as the soil maps, should be used in planning detailed surveys at construction sites. These will help the engineer to concentrate on the most suitable soils, indicate sources of sand and gravel, and minimize the number of soil samples needed for testing in the laboratory.

In table 6 the map symbols and the names of the soils are listed alphabetically. The soil test data given in table 5, information taken from the rest of the report, and experience with similar soils in other counties were all used as a basis for preparing this table.

The engineering soil classifications given in table 6 may not apply to all parts of a mapping unit because of variations in the kind of underlying material. Also, the very stony soils have not been rated in this table. In some parts of these two counties, the stones have been removed from the surface but have not been removed from the subsoil and substratum.

In table 7 the soils of each series are rated according to their suitability for winter grading. The rating applies

only to the soil material and not to the underlying bedrock. Resistance of the soil material to frost action has also been considered in rating the soils as sources of sand and gravel. As a rule, for a soil to be nonsusceptible to frost action, less than 10 percent of the soil material should pass the No. 200 sieve. If a soil is rated "Good," it may be necessary to examine the area carefully to find material that meets this condition.

In table 7 the ratings given the soils as sources of topsoil for slopes on embankments, ditches, and cut slopes apply to the soils of Chester and Delaware Counties. Generally, the uppermost 8 to 12 inches of soil material was considered for this rating.

The rating of the soil material for road subgrade is based on the texture of the soil material. Soils that have layers of plastic clay that impede internal drainage have low stability when wet; therefore, they are rated "Poor." Marshy soils are rated "Unsuitable."

The suitability of the soil material for road fill depends largely on the texture of the soil and its natural content of water. Plastic soils that have a high natural content of water are difficult to handle, slow to dry, and hard to compact. Consequently, they are rated "Poor." Fine sand and silt and other highly erodible soils require flat slopes, close control of moisture while compacting, and fast vegetation of side slopes to prevent erosion. These soils are rated "Poor to fair."

To determine the suitability of the soils for the vertical alignment of highways, the kinds of materials, as well as the drainage, must be considered carefully. If highway cuts are planned at a location where the water table is high, a survey should be made to determine the need for interceptor drains and underdrains. Seepage on the backslopes of cuts may cause slumping or sliding of the underlying material. If the water table is shallow below the pavement, differential volume change may occur, particularly within the freezing zone, and the decrease in bearing capacity of the saturated or thawed foundation material may cause deterioration of the pavement. Commonly the vertical alignment of roads is planned so that a minimum amount of cut and fill is required.

Roadways constructed on the soils of flood plains need a continuous embankment to place them above the water table. This is generally a minimum of 2 to 4 feet. Suitable materials for use in these embankments may be borrowed from the adjacent bottom lands or from the soils of uplands that are adjacent to the flood plains.

The ratings for waterways are based upon whether or not there is enough slope so that excess water will drain to a suitable outlet. Except for the soils that have a high water table, most soils in these two counties are suitable for building sites. Many of the shallow and wet soils, however, are not sufficiently permeable so that waste from septic tanks will infiltrate at all seasons of the year.

At many construction sites major variations in the soils may occur within the depth of the proposed excavation, and several different kinds of soils may occur within short distances. The soil map, the detailed description of the soils, and the engineering data and recommendations given in this section should be used to plan detailed surveys of soils at construction sites. The soil survey report will enable the soils engineer to concentrate on the most suitable soil units and to take a minimum number of soil samples for testing in the laboratory. Therefore, an adequate soil investigation can be made at minimum cost.

TABLE 6.—*Brief description of the soils of Chester and Delaware*

[Dashes indicate does not apply, or

Symbol on map	Soil name	Depth to seasonally high water table	Depth to bedrock	Brief description of soil	Depth from surface
AgA	Aldino silt loam, 0 to 3 percent slopes.	<i>Feet</i> ½-1	<i>Feet</i> 1½-2½	Moderately well drained to somewhat poorly drained silt loam or very stony silt loam, 1½ to 2½ feet thick; has a claypan at a depth of about 20 inches; underlain by serpentine rock; the very stony soil has boulders, 2 to 3 feet in diameter, on the surface and throughout the profile.	<i>Inches</i> 0-8 8-24 24-30
AgB2	Aldino silt loam, 3 to 8 percent slopes, moderately eroded.				
AsB2	Aldino very stony silt loam, 0 to 8 percent slopes, moderately eroded.				
BdA	Bedford silt loam, 0 to 3 percent slopes.	2-3	4-6	Moderately well drained silty clay loam, 4 to 6 feet thick; underlain by calciferous schist and marble.	0-11 11-52 52-70
BdB	Bedford silt loam, 3 to 8 percent slopes.	5+	4-6	Moderately well drained silt loam and silty clay loam, 4 to 6 feet thick; underlain by calciferous schist or marble.	0-8 8-40 40-60
BdB2	Bedford silt loam, 3 to 8 percent slopes, moderately eroded.				
BeA	Beltsville silt loam, 0 to 3 percent slopes.	1-2	6+	Moderately well drained silt loam and silty clay loam, 3 to 6 feet thick; underlain by consolidated coastal plain deposits of clay, silt, sand, and gravel that are 4 to 40 feet or more deep; a pan that is very slowly permeable is at a depth between 18 and 20 inches.	0-7 7-48
BeB2	Beltsville silt loam, 3 to 8 percent slopes, moderately eroded.				48+
Bo	Bowmansville silt loam.	0-1½	3-6	Poorly drained materials of flood plains, 3 to 6 feet thick, washed from Triassic red sandstone and shale in the uplands; subject to periodic flooding; the water table is near the surface.	0-60
BrB2	Brandywine loam, 3 to 8 percent slopes, moderately eroded.	10+	3-4	Well-drained loam and silt loam, 1 to 2 feet thick; underlain by igneous and metamorphic rocks of the Piedmont Plateau; the stony soils have boulders, 1 to 2 feet in diameter, on the surface throughout the profile.	0-6 6-20 20-32
BrC	Brandywine loam, 8 to 13 percent slopes.				
BrC2	Brandywine loam, 8 to 13 percent slopes, moderately eroded.				
BrC3	Brandywine loam, 8 to 13 percent slopes, severely eroded.				
BrD	Brandywine loam, 15 to 25 percent slopes.				
BrD2	Brandywine loam, 15 to 25 percent slopes, moderately eroded.				
BrD3	Brandywine loam, 15 to 25 percent slopes, severely eroded.				
BrE	Brandywine loam, 25 to 40 percent slopes.				
BsB	Brandywine very stony loam, 0 to 8 percent slopes.				
BsD	Brandywine very stony loam, 8 to 25 percent slopes.				
BsF	Brandywine very stony loam, 25 to 50 percent slopes.				

See footnotes at end of table.

CHESTER AND DELAWARE COUNTIES, PENNSYLVANIA

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Counties, Pa., and their estimated physical properties ¹

information is not available]

Classification		Percentage passing sieve—			Permeability	Available moisture capacity ²	Reaction	Optimum moisture for compaction ³	Maximum dry density ⁴	Shrink-swell potential ⁴
Unified	AASHO	No. 4	No. 10	No. 200						
					<i>Inches per hour</i> 2.0–6.3 <0.2 <0.2	<i>Inches per inch</i> 0.25 .13 .08	<i>pH</i> 5.2 5.4 5.4	<i>Percent</i> 15–30 12–25	<i>Pounds per cubic foot</i> 70–110 80–115	
CL	A-6	90–95	80–90	55–65	0.63–2.0	.28	6.3			
SM	A-7	80–90	70–85	35–40	0.63–2.0	.23	6.4	20	105	Medium.
					0.63–2.0	.25	6.6	22	102	Low.
CL	A-6	95	90	80	0.63–2.0	.29	6.5			
ML	A-7	85	80	75	0.63–2.0	.21	5.8	20	105	Low.
					0.63–2.0	.27	6.0	22	102	Low.
ML-CL, MH		99	98	90	0.63–2.0	.29	5.0			
ML-CL, ML		99	90	85	<0.2	.12	5.4	10–15	116–125	Low to medium.
CL, ML-CL	A-4 to A-7	100	100	50–70	0.63–2.0	.08	5.2	15	113	Low to medium.
SC	A-6	100	100	45	0.63–2.0	2.0	5.2	20	100	Medium.
CL	A-6	95	90	65	0.63–2.0	.13	5.0			
					0.63–2.0	.10	4.5	12	108	Low.
SC	A-2	85	75	25	2.0–6.3	.08	4.5	14	103	Low.
SM	A-2	70	60	20						

TABLE 6.—*Brief description of the soils of Chester and Delaware*

Symbol on map	Soil name	Depth to seasonally high water table	Depth to bedrock	Brief description of soil	Depth from surface
WnA	Woodstown loam, 0 to 3 percent slopes.	<i>Feet</i> 2-3	<i>Feet</i> 10+	Moderately well drained silty clay loam, 3 to 4 feet thick; underlain by unconsolidated coastal plain sand and gravel that in places is 15 to 20 feet deep.	<i>Inches</i> 0-10 10-45 45-60
WoA	Worsham silt loam, 0 to 3 percent slopes.	0-1	3-5	Poorly drained silt loam and clay loam, 3 to 5 feet thick; underlain by schist and gneiss of the Piedmont Plateau; the stony soil has cobbles and stones that range from 3 inches to 3 feet in diameter on the surface and throughout the profile.	0-9 9-56 56-72
WoB	Worsham silt loam, 3 to 8 percent slopes.				
WoB2	Worsham silt loam, 3 to 8 percent slopes, moderately eroded.				
WoC2	Worsham silt loam, 8 to 15 percent slopes, moderately eroded.				
WsB	Worsham very stony silt loam, 0 to 8 percent slopes.				

¹ Properties given for Brecknock, Chester, Chrome, Glenelg, Glenville, Neshaminy, Penn, and Sassafras series are based on analyses made by Pennsylvania Department of Highways; others are estimates interpolated from this data and test data from other counties.

² The available moisture capacity in inches per inch of soil depth is an approximation of the capillary water in the soil when wet to field capacity. When the soil is "air dry," this amount of water will wet the soil material described to a depth of 1 inch without deeper percolation.

TABLE 7.—*Suitability and characteristics of the soils of*

(The characteristics listed are those that cause difficulty in the stated kind of construction.)

Soil series and map symbols	Suitability for winter grading	Resistance to frost action	Suitability of material for—		Suitability as source of—		Characteristics that affect—	
			Road subgrade	Road fill	Topsoil	Sand and gravel	Vertical alignment for highways	
							Materials ¹	Drainage
Aldino (AgA, AgB2, AsB2)-----	Poor.....	Poor.....	Poor to fair.	Poor.....	Fair.....	Unsuitable..	Instability..	Seasonal high water table.
Bedford (BdA, BdB, BdB2)-----	Fair.....	Fair.....	Fair.....	Good.....	Good.....	Poor.....	Claypan.....	Claypan.....
Beltsville (BeA, BeB2)-----	Fair.....	Fair.....	Poor to fair.	Fair.....	Good.....	Variable.....	Claypan.....	Claypan.....
Bowmansville (Bo)-----	Poor.....	Poor.....	Poor to fair.	Poor.....	Fair.....	Unsuitable..	Instability..	Seasonal high water table.
Brandywine (BrB2, BrC, BrC2, BrC3, BrD, BrD2, BrD3, BrE, BsB, BsD, BsF)-----	Good.....	Fair.....	Good.....	Good.....	Fair.....	Unsuitable..		
Brecknock (BtB2, BtC2, BtC3, BtD2, BtD3, BtE3, BvB, BvD, BvF)-----	Fair.....	Fair.....	Poor to fair.	Fair.....	Fair.....	Unsuitable..		
Bucks (BxB2)-----	Fair.....	Fair.....	Poor to fair.	Fair.....	Good.....	Unsuitable..		
Butlertown (ByA, ByB2)-----	Fair.....	Poor.....	Poor to fair.	Poor.....	Good.....	Variable.....	Claypan.....	
Calvert (CaA, CaB, CaB2)-----	Poor.....	Poor.....	Poor.....	Poor.....	Fair.....	Unsuitable..	Instability..	Seasonal high water table.
Chester (CdA, CdA2, CdB, CdB2, CdB3, CdC, CdC2, CdC3, CgB, CgC)-----	Good.....	Poor.....	Fair.....	Fair.....	Good.....	Unsuitable..		

See footnote at end of table.

CHESTER AND DELAWARE COUNTIES, PENNSYLVANIA

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Counties, Pa., and their estimated physical properties ¹—Continued

Classification		Percentage passing sieve—			Permeability	Available moisture capacity ²	Reaction	Optimum moisture for compaction ³	Maximum dry density ²	Shrink-swell potential ⁴
Unified	AASHO	No. 4	No. 10	No. 200						
ML	A-7	95	85	65	<i>Inches per hour</i> 2.0–6.3	<i>Inches per inch</i> 0.15	pH 6.2	<i>Percent</i> 15–20	<i>Pounds per cubic foot</i> 108	Low.
CL–ML	A-4	90	80	55	0.63–2.0 >6.3	.21 .07	5.5 5.2	14–21	105	Low.
MH	A-7	90–100	85–95	80–90	0.2–0.63	.22	5.8	15–20	105	Low.
ML	A-7-5	90–100	65–75	60–70	<0.2 <0.2	.18 .08	5.2 5.0	12–18	112	Low.

² Estimates are based on AASHO Designation T 99–57, Method A, in which only the material passing the No. 4 sieve is considered. For those soils containing material larger than that passing a No. 4 sieve, the optimum moisture will be lower and the maximum dry density higher than these estimated values.

⁴ In general, soil classified as CH and A-7 have high shrink-swell

potential. Clean sand and gravel (single grain) and soil material that has small amounts of nonplastic to slightly plastic fines, as well as most other nonplastic to slightly plastic soil materials, have low shrink-swell potential.

³ Free water.

⁴ Variable.

Chester and Delaware Counties for engineering construction

Dashes indicate the soil generally has no special characteristics that interfere with the stated use]

Characteristics that affect—Continued		Characteristics that affect suitability for—							
Infiltration of waste from septic tanks	Construction and maintenance of pipelines	Dikes and levees	Farm ponds		Agricultural drainage	Irrigation	Terraces and diversions	Waterways	Building sites
			Reservoir area	Embankment					
Slowly permeable.	Shallow soil.	-----	Shallow soil.	Lacks binder.	Heavy subsoil.	Shallow soil.	Shallow soil.	Shallow soil.	Wetness.
Claypan	Fluctuating water table.	Instability	Claypan	Claypan	Restrictive claypan.	Claypan	Claypan	Claypan	Claypan.
High water table.	High water table.	Instability	Instability	Instability	Flooding	Poor drainage; slow permeability.	Flooding	Flooding	Flooding.
-----	Shallow soil.	-----	Rapid permeability.	Rapid permeability.	-----	Shallow soil.	Shallow soil.	Shallow soil.	-----
Hardpan	Shallow soil.	-----	Permeable sub-stratum.	Permeability.	-----	Stones	Shallow soil.	Hardpan	-----
Substratum drainage.	-----	-----	Permeable sub-stratum.	Instability	Claypan	Claypan	Claypan	Claypan	Substratum drainage.
Seasonal high water table.	High water table.	Instability	Instability	Instability	Slowly permeable.	Wetness	High water table.	Claypan	Substratum drainage.
-----	-----	Instability	Permeable sub-stratum.	Permeability.	Not needed.	-----	-----	-----	-----

Soils and Rural Developments ²

This section is designed to aid planning officials, realtors, and others interested in residential use of rural areas near growing cities. Typically, these are areas beyond the expanding suburbs, where homes are scattered among patches of farmland.

The soils of Chester and Delaware Counties have been placed in 13 groups on the basis of their characteristics that affect use for suburban or residential construction. The main characteristics considered are depth of the soil, degree of slope, internal drainage, freedom from flooding, kind of parent material, and stoniness. The soils in any one group are much alike in those characteristics affecting their suitability for home and community developments. Each group is described in terms of its characteristics and its suitability for suburban developments.

The grouping of soils for building sites, with information given in the two sections "Engineering Applications" and "Descriptions of Soils," along with maps in the back of this report, will aid those seeking suitable sites. The groupings, however, are not a substitute for the detailed investigation needed at the site proposed for an expensive development. Also, the groupings take into account only the characteristics of the soils. Not considered are distance to established centers, transportation lines, and other economic factors. Groupings of soils for building sites should not be confused with groupings of soils for agriculture or forestry; that is, capability units and woodland suitability groups.

Group 1 for building sites

These are deep, well-drained, permeable soils with slopes of 0 to 8 percent. The following soils are in this group:

Chester silt loam, 0 to 3 percent slopes.
 Chester silt loam, 0 to 3 percent slopes, moderately eroded.
 Chester silt loam, 3 to 8 percent slopes.
 Chester silt loam, 3 to 8 percent slopes, moderately eroded.
 Chester silt loam, 3 to 8 percent slopes, severely eroded.
 Conestoga silt loam, 0 to 3 percent slopes.
 Conestoga silt loam, 0 to 3 percent slopes, moderately eroded.
 Conestoga silt loam, 3 to 8 percent slopes, moderately eroded.
 Edgemont channery loam, 3 to 8 percent slopes.
 Edgemont channery loam, 3 to 8 percent slopes, moderately eroded.
 Hagerstown silt loam, 0 to 3 percent slopes, moderately eroded.
 Hagerstown silt loam, 3 to 8 percent slopes, moderately eroded.
 Made land, gravelly materials.
 Made land, schist and gneiss materials.
 Sassafras loam, 0 to 3 percent slopes.
 Sassafras loam, 3 to 8 percent slopes, moderately eroded.

This group consists of soils that have few natural limitations, are the most easily cultivated, and are among the best for agriculture in the two counties. Except for Made land, the soils are better used for agriculture than for homes or other buildings. If they are selected as building sites, their mild slope and ease of grading make them desirable locations for stores, factories, schools, and hospitals.

In some places the Hagerstown soils are not suitable for foundations, because of solution caverns in the underlying rocks. The other soils are generally suitable, but each potential building site should be examined carefully.

² By F. G. LOUGHRY, State soil scientist, Soil Conservation Service, in consultation with officials of the Pennsylvania Department of Health.

These soils are suitable as fields for septic tanks because they have good permeability, are not affected by a seasonal high water table, and absorb septic tank effluent fairly rapidly.

Group 2 for building sites

These are deep, well-drained, permeable soils with slopes of 8 to 25 percent. The following soils are in this group:

Chester silt loam, 8 to 15 percent slopes.
 Chester silt loam, 8 to 15 percent slopes, moderately eroded.
 Chester silt loam, 8 to 15 percent slopes, severely eroded.
 Conestoga silt loam, 8 to 15 percent slopes, moderately eroded.
 Conestoga silt loam, 8 to 15 percent slopes, severely eroded.
 Edgemont channery loam, 8 to 15 percent slopes.
 Edgemont channery loam, 8 to 15 percent slopes, moderately eroded.
 Edgemont channery loam, 8 to 15 percent slopes, severely eroded.
 Edgemont channery loam, 15 to 25 percent slopes.
 Edgemont channery loam, 15 to 25 percent slopes, moderately eroded.
 Edgemont channery loam, 15 to 25 percent slopes, severely eroded.
 Hagerstown silt loam, 8 to 15 percent slopes, moderately eroded.
 Hagerstown silt loam, 8 to 15 percent slopes, severely eroded.

These soils have slopes satisfactory for residences but are somewhat steep for large stores, factories, schools, or hospitals. Most areas provide suitable foundations, but there is some slow soil creep on the steeper slopes.

The soils in this group have good surface drainage and are free of a seasonal high water table. If they are used for residential developments, runoff and gully erosion may be problems.

The soils will absorb a normal load of effluent from septic tanks. If large amounts of waste infiltrate the Conestoga and Hagerstown soils, the ground water will be contaminated because the bedrock under these soils contains large channels.

Group 3 for building sites

These are deep, well-drained, slowly to moderately permeable soils with slopes of 0 to 8 percent. The following soils are in this group:

Bucks silt loam, 3 to 8 percent slopes, moderately eroded.
 Butlertown silt loam, 0 to 3 percent slopes.
 Butlertown silt loam, 3 to 8 percent slopes, moderately eroded.
 Made land, silt and clay materials.
 Made land, gabbro and diabase materials.
 Montalto channery silt loam, 3 to 8 percent slopes, moderately eroded.
 Montalto very stony silt loam, 0 to 8 percent slopes.
 Neshaminy gravelly silt loam, 0 to 3 percent slopes.
 Neshaminy gravelly silt loam, 3 to 8 percent slopes, moderately eroded.
 Neshaminy very stony silt loam, 0 to 8 percent slopes.

The soils of this group are deep and well drained. Except for Made land and the very stony Montalto and Neshaminy soils, all of them are well suited to truck farming or similar specialized agriculture. Their use for that purpose, rather than for construction, should be considered.

All of these soils have slopes favorable for stores, factories, and schools. They all provide suitable foundations. If the very stony Montalto and Neshaminy soils are used for construction, however, the many boulders will add to the cost of excavating and grading.

These soils do not have a seasonal high water table,

but there is a perched water table for a short time after rains. Drainage and aeration are good.

These soils absorb waste materials less rapidly than the soils of groups 1 and 2. Larger disposal fields will therefore be required if septic tanks are to operate satisfactorily.

Group 4 for building sites

These are deep, well-drained, slowly permeable soils with slopes of 8 to 25 percent. The following soils are in this group:

- Montalto channery silt loam, 8 to 15 percent slopes, moderately eroded.
- Montalto channery silt loam, 8 to 15 percent slopes, severely eroded.
- Montalto channery silt loam, 15 to 25 percent slopes, severely eroded.
- Montalto very stony silt loam, 8 to 25 percent slopes.
- Neshaminy gravelly silt loam, 8 to 15 percent slopes, moderately eroded.
- Neshaminy gravelly silt loam, 8 to 15 percent slopes, severely eroded.
- Neshaminy gravelly silt loam, 15 to 25 percent slopes.
- Neshaminy gravelly silt loam, 15 to 25 percent slopes, severely eroded.
- Neshaminy very stony silt loam, 8 to 25 percent slopes.

The soils in this group have slopes that are satisfactory for residences. They are somewhat steep, however, for the buildings and large grounds needed for commercial and industrial enterprises. In the main the soils provide suitable foundations, but some slow soil creep occurs on the steeper slopes.

The very stony Montalto and Neshaminy soils contain boulders that increase the cost and difficulty of excavating and grading. During and after construction, runoff likely will be a serious problem on soils of this group. If these soils are not protected, severe erosion may take place and nearby lower areas may be flooded and covered by deposits of silt.

These soils do not have a seasonal high water table. They have good internal drainage and are well aerated, but they absorb waste from septic tanks more slowly than the soils of groups 1 and 2. If these soils are used as fields for septic tanks, the fields must be larger than for the soils of groups 1 and 2.

Group 5 for building sites

These are predominantly moderately deep, well-drained soils with slopes of 0 to 8 percent. The following soils are in this group:

- Brecknock channery silt loam, 3 to 8 percent slopes, moderately eroded.
- Brecknock very stony silt loam, 0 to 8 percent slopes.
- Chester very stony silt loam, 0 to 8 percent slopes.
- Edgemont very stony loam, 0 to 8 percent slopes.
- Glenelg channery silt loam, 0 to 3 percent slopes.
- Glenelg channery silt loam, 0 to 3 percent slopes, moderately eroded.
- Glenelg channery silt loam, 3 to 8 percent slopes.
- Glenelg channery silt loam, 3 to 8 percent slopes, moderately eroded.
- Glenelg channery silt loam, 3 to 8 percent slopes, severely eroded.
- Glenelg silt loam, 0 to 3 percent slopes, severely eroded.
- Glenelg silt loam, 3 to 8 percent slopes, severely eroded.
- Made land, sanitary land fill.
- Manor loam, 0 to 3 percent slopes, moderately eroded.
- Manor loam, 3 to 8 percent slopes, moderately eroded.
- Manor loam, 3 to 8 percent slopes, severely eroded.
- Manor very stony loam, 0 to 8 percent slopes.

Except for the very stony soils and Made land, the soils of this group are fairly good for agriculture. Their slopes are favorable for stores, factories, schools, and similar large structures requiring ready access. If the very stony soils are used for construction, the many boulders will increase the cost of excavating and grading.

Most of the areas are suitable for foundations, but bedrock is only 2 to 4 feet from the surface in most places. The upper part of the bedrock is partially weathered and soft, and in many places bedrock of varying hardness is reached in excavating. In many places the Glenelg and Manor soils are underlain by saprolite, or rotten rock, to a depth of 20 feet. This rotten rock is not stable under heavy weight. Made land, sanitary land fill, is subject to settling and is, therefore, a poor foundation.

Because these soils are well drained and permeable, they readily absorb wastes and are suitable fields for septic tanks.

Group 6 for building sites

These are predominantly moderately deep, well-drained, permeable soils with slopes of 8 to 25 percent. The following soils are in this group:

- Brecknock channery silt loam, 8 to 15 percent slopes, moderately eroded.
- Brecknock channery silt loam, 8 to 15 percent slopes, severely eroded.
- Brecknock channery silt loam, 15 to 25 percent slopes, moderately eroded.
- Brecknock channery silt loam, 15 to 25 percent slopes, severely eroded.
- Brecknock very stony silt loam, 8 to 25 percent slopes.
- Chester very stony silt loam, 8 to 15 percent slopes.
- Edgemont very stony loam, 8 to 25 percent slopes.
- Glenelg channery silt loam, 8 to 15 percent slopes.
- Glenelg channery silt loam, 8 to 15 percent slopes, moderately eroded.
- Glenelg channery silt loam, 8 to 15 percent slopes, severely eroded.
- Glenelg channery silt loam, 15 to 25 percent slopes.
- Glenelg channery silt loam, 15 to 25 percent slopes, moderately eroded.
- Glenelg channery silt loam, 15 to 25 percent slopes, severely eroded.
- Glenelg very stony silt loam, 15 to 25 percent slopes.
- Manor loam, 8 to 15 percent slopes.
- Manor loam, 8 to 15 percent slopes, moderately eroded.
- Manor loam, 8 to 15 percent slopes, severely eroded.
- Manor loam, 15 to 25 percent slopes.
- Manor loam, 15 to 25 percent slopes, moderately eroded.
- Manor loam, 15 to 25 percent slopes, severely eroded.
- Manor very stony loam, 8 to 25 percent slopes.

These soils have slopes that can be used as sites for residences, but they are too steep for large stores, factories, schools, or other buildings requiring ready access. The soils are fairly suitable as foundations for small structures.

Boulders scattered on the surface and through the underlying material of the very stony soils make excavating and grading somewhat difficult and expensive. The partly weathered rocks, or saprolite, underlying the Glenelg and Manor soils are soft and somewhat elastic in many places. There is slow soil creep on the steep slopes. While construction is taking place, runoff is a problem. It may cause severe gullying.

These soils do not have a seasonal high water table. They have good internal drainage and are well aerated. The soils absorb effluent satisfactorily and are suitable as fields for septic tanks.

Group 7 for building sites

These are shallow, well-drained soils with slopes of 0 to 8 percent. The following soils are in this group:

Brandywine loam, 3 to 8 percent slopes, moderately eroded.
 Brandywine very stony loam, 0 to 8 percent slopes.
 Chrome gravelly silty clay loam, 3 to 8 percent slopes, moderately eroded.
 Hollinger silt loam, 3 to 8 percent slopes, moderately eroded.
 Penn shaly silt loam, very shallow, 3 to 8 percent slopes, severely eroded.
 Penn silt loam, 3 to 8 percent slopes, moderately eroded.
 Penn very stony silt loam, 0 to 8 percent slopes.
 Penn and Lansdale sandy loams, 3 to 8 percent slopes, moderately eroded.

These soils are shallow over bedrock. In most places the bedrock is hard enough so that the soils are suitable for foundations, but that underlying the Chrome soil is soft or variable. Areas of these soils are generally too small for shopping centers, factories, schools, or similar construction. The very stony phases of Brandywine and Penn soils contain enough boulders to increase the cost of grading.

Excavating in soils of this group usually requires that the bedrock be quarried to some extent. As a rule, after earth moving is completed, the material that remains is too shallow or contains too many fragments of raw, broken rock to be suitable for growing grass, shrubs, or trees. Also, the soil material is droughty, and special problems can be expected in revegetating the areas and establishing good lawns.

Although these soils are well drained and well aerated, they are permeable to a depth of only 1 or 2 feet. Every site should be tested carefully to be sure that water that has been added does not build up to saturate the entire soil and then come to the surface. Difficulty can be expected if the soils are used as fields for septic tanks. Where effluent does sink into cracks in the bedrock it may contaminate the ground water because the soil material makes a poor filter.

Group 8 for building sites

These are shallow, well-drained soils with slopes of 8 to 25 percent. The following soils are in this group:

Brandywine loam, 8 to 15 percent slopes.
 Brandywine loam, 8 to 15 percent slopes, moderately eroded.
 Brandywine loam, 8 to 15 percent slopes, severely eroded.
 Brandywine loam, 15 to 25 percent slopes.
 Brandywine loam, 15 to 25 percent slopes, moderately eroded.
 Brandywine loam, 15 to 25 percent slopes, severely eroded.
 Brandywine very stony loam, 8 to 25 percent slopes.
 Chrome gravelly silty clay loam, 8 to 15 percent slopes, moderately eroded.
 Chrome gravelly silty clay loam, 8 to 15 percent slopes, severely eroded.
 Chrome gravelly silty clay loam, 15 to 25 percent slopes, moderately eroded.
 Chrome gravelly silty clay loam, 15 to 25 percent slopes, severely eroded.
 Hollinger silt loam, 8 to 15 percent slopes, moderately eroded.
 Hollinger silt loam, 8 to 15 percent slopes, severely eroded.
 Hollinger silt loam, 15 to 25 percent slopes, severely eroded.
 Penn shaly silt loam, very shallow, 8 to 15 percent slopes, severely eroded.
 Penn shaly silt loam, very shallow, 15 to 25 percent slopes, severely eroded.
 Penn silt loam, 8 to 15 percent slopes, moderately eroded.
 Penn silt loam, 8 to 15 percent slopes, severely eroded.
 Penn silt loam, 15 to 25 percent slopes.
 Penn silt loam, 15 to 25 percent slopes, moderately eroded.
 Penn very stony silt loam, 8 to 25 percent slopes.

Penn and Lansdale sandy loams, 8 to 15 percent slopes, moderately eroded.

Penn and Lansdale sandy loams, 8 to 15 percent slopes, severely eroded.

Penn and Lansdale sandy loams, 15 to 25 percent slopes, moderately eroded.

The soils in this group have slopes that are satisfactory as sites for residences. They are too steep, however, for shopping centers, factories, or similar large commercial, industrial, or institutional construction. In most of the soils, bedrock is at a depth of 1 to 2 feet. In most places the bedrock is hard enough to be satisfactory for foundations, but the Chrome soils overlie soft, schistose bedrock.

Generally, excavation in these soils requires some quarrying of the bedrock. If the very stony soils are used for construction, the large number of boulders will increase the cost of grading. On the steeper slopes there is some slow soil creep.

In many places runoff and the resulting erosion are problems during construction. If earthmoving is necessary, the soils are so shallow that the soil material left is poor for growing grass, shrubs, or trees. Droughtiness makes it hard to establish good lawns and vigorous shrubs.

Although these soils are well drained and do not have a seasonal high water table, the bedrock near the surface keeps them from absorbing water well. If water is added, as in the areas used as fields for septic tanks, it may seep out of the hillsides farther down the slope.

Group 9 for building sites

These are well-drained soils with slopes that are steeper than 25 percent. The following soils are in this group:

Brandywine loam, 25 to 40 percent slopes.
 Brandywine very stony loam, 25 to 50 percent slopes.
 Brecknock channery silt loam, 25 to 35 percent slopes, severely eroded.
 Brecknock very stony silt loam, 25 to 50 percent slopes.
 Chrome gravelly silty clay loam, 25 to 40 percent slopes, moderately eroded.
 Edgemont channery loam, 25 to 35 percent slopes.
 Edgemont channery loam, 25 to 35 percent slopes, moderately eroded.
 Edgemont very stony loam, 25 to 60 percent slopes.
 Glenelg channery silt loam, 25 to 35 percent slopes.
 Glenelg channery silt loam, 25 to 35 percent slopes, severely eroded.
 Glenelg very stony silt loam, 25 to 35 percent slopes.
 Hollinger silt loam, 25 to 35 percent slopes, severely eroded.
 Manor loam and channery loam, 25 to 35 percent slopes.
 Manor loam and channery loam, 25 to 35 percent slopes, severely eroded.
 Manor soils, 35 to 60 percent slopes.
 Manor very stony loam, 25 to 60 percent slopes.
 Montalto very stony silt loam, 25 to 45 percent slopes.
 Neshaminy very stony silt loam, 25 to 45 percent slopes.
 Penn very stony silt loam, 25 to 50 percent slopes.
 Penn soils, 25 to 35 percent slopes, moderately eroded.
 Penn soils, 25 to 35 percent slopes, severely eroded.
 Penn soils, 35 to 50 percent slopes.

The soils in this group are well drained but are too steep to be used as sites for ordinary dwellings. In most suburban areas they can best be used as open spaces or for parks or forests. Some areas may be suitable for use as extensive pastures or game preserves.

In many places these soils occur in areas where the view is unobstructed. Therefore, use of large tracts for luxury housing may be feasible. Each building site

would require special study and design if used for that purpose.

Group 10 for building sites

These are deep, moderately well drained soils with slopes of 0 to 8 percent. The following soils are in this group:

Bedford silt loam, 0 to 3 percent slopes.
Bedford silt loam, 3 to 8 percent slopes.
Bedford silt loam, 3 to 8 percent slopes, moderately eroded.
Beltsville silt loam, 0 to 3 percent slopes.
Beltsville silt loam, 3 to 8 percent slopes, moderately eroded.
Conowingo silt loam, 0 to 3 percent slopes.
Conowingo silt loam, 3 to 8 percent slopes, moderately eroded.
Glenville silt loam, 0 to 3 percent slopes.
Glenville silt loam, 3 to 8 percent slopes.
Glenville silt loam, 3 to 8 percent slopes, moderately eroded.
Glenville very stony silt loam, 0 to 8 percent slopes.
Lehigh silt loam, 3 to 8 percent slopes.
Lehigh silt loam, 3 to 8 percent slopes, moderately eroded.
Lehigh very stony silt loam, 0 to 8 percent slopes.
Mount Lucas very stony silt loam, 0 to 8 percent slopes.
Readington silt loam, 0 to 3 percent slopes.
Readington silt loam, 3 to 8 percent slopes.
Readington silt loam, 3 to 8 percent slopes, moderately eroded.
Woodstown loam, 0 to 3 percent slopes.

These soils are moderately well drained, but in most years they have a seasonal high water table for a period of several weeks. The high water table causes sealing and drainage problems in basements. The soils have gentle slopes that are favorable for stores, factories, schools, and similar commercial, industrial, or institutional construction. The many boulders in the very stony phases of Glenville, Lehigh, and Mount Lucas soils increase the cost of excavating and grading.

If these soils are used as fields for septic tanks, the water table will be too high for several weeks each year and the effluent will not be absorbed properly. In some of the more permeable soils, such as the Bedford, Glenville, and Woodstown, absorption can be improved if an independent tile drainage system that has an adequate outlet is installed before the field is established. For seasonal use in summer, as for a summer camp, these soils may be used satisfactorily as fields for septic tanks, but the fields need to be large.

Group 11 for building sites

These are deep, moderately well drained soils with slopes of 8 to 25 percent. The following soils are in this group:

Glenville silt loam, 8 to 15 percent slopes, moderately eroded.
Lehigh silt loam, 8 to 15 percent slopes, severely eroded.
Lehigh very stony silt loam, 8 to 25 percent slopes.

These soils have moderately good internal drainage but have a seasonal high water table and seepage on the hillsides. They are suitable as foundations for houses, but there are problems in sealing and draining the basements. The boulders in the Lehigh very stony silt loam increase the difficulty of excavating and grading.

Seepage through the subsoil when there is a seasonal high water table makes these soils poor as fields for septic tanks. If much waste is added to the septic-tank system, it may seep out on the surface farther down the slope.

Group 12 for building sites

These are poorly and somewhat poorly drained soils of uplands that have slopes of 0 to 15 percent. The following soils are in this group:

Aldino silt loam, 0 to 3 percent slopes.
Aldino silt loam, 3 to 8 percent slopes, moderately eroded.
Aldino very stony silt loam, 0 to 8 percent slopes, moderately eroded.
Calvert silt loam, 0 to 3 percent slopes.
Calvert silt loam, 3 to 8 percent slopes.
Calvert silt loam, 3 to 8 percent slopes, moderately eroded.
Croton silt loam, 0 to 3 percent slopes.
Croton silt loam, 3 to 8 percent slopes.
Guthrie silt loam.
Lawrence silt loam, 0 to 3 percent slopes.
Lawrence silt loam, 3 to 8 percent slopes.
Othello silt loam.
Watchung silt loam, 0 to 3 percent slopes.
Watchung silt loam, 3 to 8 percent slopes, moderately eroded.
Watchung very stony silt loam, 0 to 8 percent slopes.
Worsham silt loam, 0 to 3 percent slopes.
Worsham silt loam, 3 to 8 percent slopes.
Worsham silt loam, 3 to 8 percent slopes, moderately eroded.
Worsham silt loam, 8 to 15 percent slopes, moderately eroded.
Worsham very stony silt loam, 0 to 8 percent slopes.

All of these soils have a high water table for several months of the year. The Watchung and Worsham soils have a high water table for an even longer period, or for most of the year, and at times water stands on the surface of these soils. The sloping, moderately eroded phases of Worsham soils occur as small seepage areas on hillsides.

The soils of group 12 for building sites are generally unsatisfactory as foundations for heavy structures. If they are used for commercial or residential construction, fill will be needed to raise floors above the level reached by the water table. The fill needs adequate drainage so that the water will not rise to the new level.

These soils are unsuitable as fields for septic tanks. If they are used for that purpose, the distribution lines are below the level of the normal water table for long periods.

Group 13 for building sites

These are soils of flood plains that are subject to overflow. The following soils are in this group:

Bowmansville silt loam.
Chewacla silt loam.
Congaree silt loam.
Lindside silt loam.
Melvin silt loam.
Rowland silt loam.
Rowland silt loam, dark surface.
Tidal marsh.
Wehadkee silt loam.

These soils are flooded by the normal high waters of streams. Tidal marsh is covered by water twice each day. The other soils are flooded from two or three times a year to once in several years.

Some areas of these soils may have value as parks and recreational areas, and some may be used for agriculture. The soils are not suitable as sites for homes or other buildings.

Descriptions of Soils

In this section the soil series of Chester and Delaware Counties are described in alphabetical order. Following the general description of each series is a profile description of a soil that is typical of that series. Each of the other mapping units of the series is compared to the typical soil for which a profile is described, and additional facts about each are given. Further information on the use and management of each soil is given in the section "Use

and Management of the Soils." Terms used to describe the soils are given in the Glossary.

A list of the soils mapped is given at the back of the report, along with the capability unit, the woodland group,

and the urban group of each. The approximate acreage and proportionate extent of the soils are given in table 8. Their location and distribution are shown on the soil map at the back of this report.

TABLE 8.—Approximate acreage and proportionate extent of the soils mapped

Soil	Chester County		Delaware County	
	Acres	Percent	Acres	Percent
Aldino silt loam, 0 to 3 percent slopes.....	91	(¹)	0	0
Aldino silt loam, 3 to 8 percent slopes, moderately eroded.....	133	(¹)	28	(¹)
Aldino very stony silt loam, 0 to 8 percent slopes, moderately eroded.....	102	(¹)	0	0
Bedford silt loam, 0 to 3 percent slopes.....	803	0.2	0	0
Bedford silt loam, 3 to 8 percent slopes.....	318	.1	0	0
Bedford silt loam, 3 to 8 percent slopes, moderately eroded.....	694	.1	0	0
Beltsville silt loam, 0 to 3 percent slopes.....	0	0	676	.6
Beltsville silt loam, 3 to 8 percent slopes, moderately eroded.....	174	(¹)	710	.6
Bowmansville silt loam.....	792	0.2	0	0
Brandywine loam, 3 to 8 percent slopes, moderately eroded.....	830	.2	140	.1
Brandywine loam, 8 to 15 percent slopes.....	111	(¹)	106	.1
Brandywine loam, 8 to 15 percent slopes, moderately eroded.....	596	.1	9	(¹)
Brandywine loam, 8 to 15 percent slopes, severely eroded.....	597	.1	763	.6
Brandywine loam, 15 to 25 percent slopes.....	170	(¹)	257	.2
Brandywine loam, 15 to 25 percent slopes, moderately eroded.....	226	(¹)	46	(¹)
Brandywine loam, 15 to 25 percent slopes, severely eroded.....	658	.1	742	.6
Brandywine loam, 25 to 40 percent slopes.....	553	.1	638	.5
Brandywine very stony loam, 0 to 8 percent slopes.....	227	(¹)	2	(¹)
Brandywine very stony loam, 8 to 25 percent slopes.....	1,558	.3	265	.2
Brandywine very stony loam, 25 to 50 percent slopes.....	663	.1	264	.2
Brecknock channery silt loam, 3 to 8 percent slopes, moderately eroded.....	412	.1	0	0
Brecknock channery silt loam, 8 to 15 percent slopes, moderately eroded.....	125	(¹)	0	0
Brecknock channery silt loam, 8 to 15 percent slopes, severely eroded.....	22	(¹)	0	0
Brecknock channery silt loam, 15 to 25 percent slopes, moderately eroded.....	8	(¹)	0	0
Brecknock channery silt loam, 15 to 25 percent slopes, severely eroded.....	12	(¹)	0	0
Brecknock channery silt loam, 25 to 35 percent slopes, severely eroded.....	26	(¹)	0	0
Brecknock very stony silt loam, 0 to 8 percent slopes.....	59	(¹)	0	0
Brecknock very stony silt loam, 8 to 25 percent slopes.....	56	(¹)	0	0
Brecknock very stony silt loam, 25 to 50 percent slopes.....	2	(¹)	5	(¹)
Bucks silt loam, 3 to 8 percent slopes, moderately eroded.....	3,015	.6	0	0
Butlertown silt loam, 0 to 3 percent slopes.....	0	0	265	.2
Butlertown silt loam, 3 to 8 percent slopes, moderately eroded.....	0	0	752	.6
Calvert silt loam, 0 to 3 percent slopes.....	278	.1	14	(¹)
Calvert silt loam, 3 to 8 percent slopes.....	62	(¹)	11	(¹)
Calvert silt loam, 3 to 8 percent slopes, moderately eroded.....	156	(¹)	0	0
Chester silt loam, 0 to 3 percent slopes.....	427	.1	20	(¹)
Chester silt loam, 0 to 3 percent slopes, moderately eroded.....	2,269	.5	159	.1
Chester silt loam, 3 to 8 percent slopes.....	537	.1	68	.1
Chester silt loam, 3 to 8 percent slopes, moderately eroded.....	9,873	2.0	1,514	1.3
Chester silt loam, 3 to 8 percent slopes, severely eroded.....	181	(¹)	0	0
Chester silt loam, 8 to 15 percent slopes.....	12	(¹)	1	(¹)
Chester silt loam, 8 to 15 percent slopes, moderately eroded.....	138	(¹)	118	.1
Chester silt loam, 8 to 15 percent slopes, severely eroded.....	114	(¹)	0	0
Chester very stony silt loam, 0 to 8 percent slopes.....	331	.1	0	0
Chester very stony silt loam, 8 to 15 percent slopes.....	401	.1	0	0
Chewacla silt loam.....	8,651	1.8	2,030	1.7
Chrome gravelly silty clay loam, 3 to 8 percent slopes, moderately eroded.....	1,406	.3	225	.2
Chrome gravelly silty clay loam, 8 to 15 percent slopes, moderately eroded.....	688	.1	174	.1
Chrome gravelly silty clay loam, 8 to 15 percent slopes, severely eroded.....	444	.1	296	.2
Chrome gravelly silty clay loam, 15 to 25 percent slopes, moderately eroded.....	165	(¹)	69	.1
Chrome gravelly silty clay loam, 15 to 25 percent slopes, severely eroded.....	208	(¹)	133	.1
Chrome gravelly silty clay loam, 25 to 40 percent slopes, moderately eroded.....	445	.1	0	0
Conestoga silt loam, 0 to 3 percent slopes.....	915	.2	0	0
Conestoga silt loam, 0 to 3 percent slopes, moderately eroded.....	706	.1	0	0
Conestoga silt loam, 3 to 8 percent slopes, moderately eroded.....	7,818	1.6	0	0
Conestoga silt loam, 8 to 15 percent slopes, moderately eroded.....	582	.1	0	0
Conestoga silt loam, 8 to 15 percent slopes, severely eroded.....	829	.2	0	0
Congaree silt loam.....	962	.2	245	.2
Conowingo silt loam, 0 to 3 percent slopes.....	461	.1	0	0
Conowingo silt loam, 3 to 8 percent slopes, moderately eroded.....	1,189	.2	223	.2
Croton silt loam, 0 to 3 percent slopes.....	1,116	.2	0	0
Croton silt loam, 3 to 8 percent slopes.....	773	.2	0	0
Edgemont channery loam, 3 to 8 percent slopes.....	3,100	.6	0	0
Edgemont channery loam, 3 to 8 percent slopes, moderately eroded.....	6,821	1.4	0	0
Edgemont channery loam, 8 to 15 percent slopes.....	4,588	.9	0	0
Edgemont channery loam, 8 to 15 percent slopes, moderately eroded.....	2,505	.5	0	0

See footnote at end of table.

amounts of lime. Depth to bedrock ranges from 36 inches to many feet.

The Bedford soils have moderately slow permeability, and their available moisture capacity is moderate to moderately high. The soils are moderately fertile. They are easy to work.

Bedford silt loam, 0 to 3 percent slopes (BdA).—This soil has a thicker surface layer and subsoil than those in the profile described as typical for the series. Also, the slopes are less steep.

The soil is well suited to truck crops and general farm crops. It is also well suited to the forage crops commonly grown, except for the deep-rooted ones. Using a cropping system in which a mixture of grasses and legumes is grown every few years improves the soil structure and returns organic matter to the soil. Cultivating on the contour helps to control erosion. White oak, red oak, black oak, tulip-poplar, hickory, and ash are the main trees growing on this soil.

The soil is in capability unit IIw-1; woodland group 8; and group 10 for building sites.

Bedford silt loam, 3 to 8 percent slopes (BdB).—The profile of this soil is similar to the one described as typical for the series, except that this soil is in wooded areas. Consequently, the surface is covered by a thin layer of recently fallen leaves and twigs. Just below is a dark grayish-brown mull of decayed leaves and roots. Underneath the mull is an A₁ horizon, 3 to 5 inches thick, of dark-gray silt loam that has weak, thin, platy, and somewhat granular structure.

The A₂ horizon, underlying the A₁, is yellowish-brown silt loam, 4 to 6 inches thick. It has weak, medium, subangular blocky structure. The layers below the A₂ horizon are similar to those in the typical profile.

In areas of this soil that have been cleared, most farm crops and truck crops grow well if lime and fertilizer are added. The soil is not suited to deep-rooted plants that require a well-drained soil. Using contour stripcropping and diversion terraces on areas that are tilled helps to control erosion. Growing grasses and legumes every few years will return organic matter to the soil. Red oak, white oak, black oak, tulip-poplar, red maple, hickory, and walnut grow well on this soil.

This soil is in capability unit IIe-6; woodland group 8; and group 10 for building sites.

Bedford silt loam, 3 to 8 percent slopes, moderately eroded (BdB2).—The profile of this soil is the same as the profile described as typical for the series.

This soil is well suited to truck crops and to the general farm crops commonly grown in the area. Diversion terraces and contour stripcropping are needed to control erosion in areas that are tilled. Growing a mixture of grasses and legumes every 3 or 4 years in the cropping system will return organic matter to the soil. Red oak, white oak, black oak, hickory, tulip-poplar, walnut, and ash are well suited to this soil.

This soil is in capability unit IIe-6; woodland group 8; and group 10 for building sites.

Beltsville Series

The Beltsville series consists of moderately well drained soils formed in silt over coastal plain unconsolidated sand, clay, and gravel. The surface layer of the soils is dark grayish-brown silt loam. The subsoil is yellowish-brown

silt loam that grades to a silty, mottled fragipan at a depth between 15 and 20 inches.

These soils occupy a strip of land about 3 miles wide that borders the Delaware River. They are mainly in the southeastern part of Delaware County, but a few, small, scattered areas are in the Great Valley of Chester County. The native vegetation was a forest of white oak, red oak, chestnut, tulip-poplar, and other hardwoods.

The Beltsville soils are near soils of the Butlertown and Othello series. They are not so well drained as the Butlertown soils and have a thicker, harder fragipan. They are better drained than the Othello soils, which have mottling in or near the surface.

Typical profile of Beltsville silt loam, 0 to 3 percent slopes:

- A_p 0 to 7 inches, dark grayish-brown (2.5Y 4/2) silt loam; weak, fine, crumb structure; friable when moist; pH 5.0; clear, wavy lower boundary; 6 to 10 inches thick.
- B₁ 7 to 12 inches, yellowish-brown (10YR 5/6) silt loam; weak, fine, crumb and somewhat weak, thin, platy structure; thin coatings of clay on peds; friable when moist; pH 5.2; clear, wavy lower boundary; 3 to 6 inches thick.
- B_{21k} 12 to 22 inches, yellowish-brown (10YR 5/8) silt loam; a few, fine, faint mottles of light brownish gray (2.5Y 6/2); moderate, medium, platy and moderate, medium, blocky structure; thin, discontinuous coatings of clay on the surfaces of peds; firm when moist; pH 5.2; clear, wavy lower boundary; 10 to 15 inches thick.
- B_{22m} 22 to 48 inches, yellowish-brown (10YR 5/6) silty clay loam; many, medium, distinct mottles of light brownish gray (2.5Y 6/2) and yellowish red (5YR 5/8); moderate, medium, platy and moderate, medium, blocky structure; very firm when moist, slightly sticky when wet; pH 5.4; 24 to 36 inches thick.

The texture of the surface layer is fairly uniform, and these soils are relatively free of gravel in the uppermost 48 inches. The soils have moderate to slow permeability and are acid throughout the profile. They have a moderate capacity for holding moisture. These soils are better suited to shallow-rooted crops than to deep-rooted ones.

Beltsville silt loam, 0 to 3 percent slopes (BeA).—The profile of this soil is the same as the one described as typical for the series.

In Chester County, east of Paoli, there are several small areas in which the subsoil is redder than that in the typical profile described, depth to mottling is greater, and the fragipan is weaker. The areas were too small to map separately and have been included with this soil in mapping.

Corn, small grain, and hay can be grown on Beltsville silt loam, 0 to 3 percent slopes, but alfalfa is not well suited. The compact, silty layer, at a depth below 15 to 20 inches, prevents adequate drainage, good aeration, and the proper development of roots. Therefore, grasses and legumes that are tolerant of these soil conditions grow best. Fairly large amounts of lime and fertilizer are required, but yields of crops are only fair to good. Red oak, white oak, red maple, and black cherry are the main trees growing on this soil.

This soil is in capability unit IIw-1; woodland group 7; and group 10 for building sites.

Beltsville silt loam, 3 to 8 percent slopes, moderately eroded (BeB2).—Except that nearly 50 percent of the original surface layer has been lost through erosion, the

profile of this soil is similar to that described as typical for the series.

Small grain, corn, and hay crops are suited to this soil. Alfalfa and other deep-rooted crops are not suited. The compact subsoil restricts drainage, good aeration, and the development of roots; therefore, shallow-rooted grasses and legumes are better suited than deep-rooted ones. Crops on this soil respond well if lime and fertilizer are applied according to the needs indicated by soil tests.

Contour strip-cropping, diversion terraces, and a cropping system that includes a sod of legumes and grasses at least 50 percent of the time are needed to control erosion and improve the structure of the soil. Red oak, white oak, hickory, Scotch pine, and white pine are well suited to this soil.

This soil is in capability unit IIe-6; woodland group 7; and group 10 for building sites.

Bowmansville Series

The Bowmansville series consists of deep, poorly drained soils on flood plains. The soils formed in deposits of sand, silt, and clay washed from Triassic sandstone and shale. Their surface layer is mottled reddish brown and grayish brown, and their subsoil is mottled brownish yellow and brownish gray. In some places there are stratified layers of sand and silt in the lower part of the B horizon. The Bowmansville soils occur only in the northern part of Chester County. The native vegetation was a forest made up mainly of maple, cottonwood, hickory, red oak, and ash.

The parent material from which the Bowmansville soils formed is similar to that of the Rowland, Penn, Bucks, and Readington soils. The Bowmansville soils, however, have poorer drainage than the Rowland soils, which are also on flood plains. They are in lower positions than the Penn, Bucks, and Readington soils, which occupy areas above the flood plain. The Penn and Bucks soils are well drained, and the Readington soils are moderately well drained. Only one soil of the series—Bowmansville silt loam—is mapped in these two counties.

Typical profile of Bowmansville silt loam:

- A₀ 0 to 9 inches, dark reddish-brown (5YR 3/4), red (2.5YR 4/6), and grayish-brown (10YR 5/2) silt loam; a few, medium, faint mottles; weak, thin, platy structure that breaks to weak, fine, crumb structure; friable; strongly acid (pH 5.2), clear, lower boundary; 8 to 11 inches thick.
- C₁ 9 to 16 inches, reddish-brown (5YR 4/4) and grayish-brown (2.5Y 5/2) loam; common, medium, distinct mottles; a few small quartz pebbles; weak, fine, crumb structure; friable; strongly acid (pH 5.2); clear, wavy lower boundary; 6 to 8 inches thick.
- D₁ 16 to 24 inches, brownish-yellow (10YR 6/6) and light brownish-gray (10YR 6/2) loam; common, medium, distinct mottles; a few quartz pebbles; weak, medium, crumb structure; firm; strongly acid (pH 5.4); gradual, wavy lower boundary; 7 to 10 inches thick.
- D₂ 24 to 38 inches, brownish-yellow (10YR 6/6) and light reddish-brown (5YR 6/3) sandy loam; weak, fine, granular structure that breaks to loose, single grains; loose to very friable; strongly acid (pH 5.2); gradual, irregular lower boundary; 12 to 15 inches thick.
- D₃ 38 inches +, reddish-brown fragments of arkose sandstone, and rounded quartz pebbles.

The substratum of these soils varies considerably in texture and in the amount of mottling. The texture of

the substratum ranges from loam to silty clay loam, and in some places the substratum contains layers of silt and sand. The intensity of mottling in the surface layer and the range in color vary. Depth to the water table ranges from 20 to 36 inches.

Areas of these soils are flooded very frequently, and the water table is near the surface for long periods. In dry seasons, however, the water table may drop to a depth of 3 or 4 feet. Because excess water stands on the soils most of the time, aeration is poor and productivity is medium to low.

Bowmansville silt loam (Bo).—The profile of this soil is the one described as typical for the series.

This nearly level soil is not suited to the cultivated crops commonly grown in these two counties, but it is moderately well suited to pasture. The pastures are of poor quality. This is the result of the poor drainage, which causes aeration to be poor, and because the capacity of the soil for supplying plant nutrients is low. Sedges and reeds persist unless the soil is artificially drained. The pastures could be greatly improved if the areas were drained and adequately limed and fertilized.

This soil is in capability unit VIW-1; woodland group 11; and group 13 for building sites.

Brandywine Series

The Brandywine series consists of well-drained soils that have a thin B horizon. The soils are underlain by partly weathered, coarse-grained gneiss and pegmatite. They have a dark grayish-brown surface layer and a yellowish-brown subsoil. The soils are droughty. They are mainly in areas that are hilly or steep, but in a few places they are on the tops of ridges. The native vegetation was a forest made up of black oak, red oak, chestnut oak, and hickory.

The Brandywine soils are near the Glenelg, Glenville, Worsham, and Chester soils. They are not so fine textured as the Chester and Glenelg soils and are less deep and more droughty. The Brandywine soils have less clay in the subsoil than the Glenville soils, and, unlike those soils, they are free of mottling. They are better drained than the Worsham soils, which have mottling near the surface.

Typical profile of Brandywine loam, 15 to 25 percent slopes:

- A₀ 1 inch to 0, dark grayish-brown mull that is partially decomposed.
- A₁ 0 to 2 inches, very dark gray (10YR 3/1) loam; weak, very fine, granular structure; very friable when moist; very strongly acid (pH 4.8); clear, wavy lower boundary; 2 to 3 inches thick.
- A₂ 2 to 6 inches, grayish-brown (2.5Y 5/2) loam; weak, fine, granular structure; very friable; very strongly acid (pH 5.0); clear, wavy lower boundary; 3 to 5 inches thick.
- B₂ 6 to 20 inches, yellowish-brown (10YR 5/6) sandy loam; weak, fine, subangular blocky structure; friable; strongly acid (pH 5.3); gradual, wavy lower boundary; 12 to 16 inches thick.
- C₁ 20 to 32 inches, yellowish-brown (10YR 5/8) loamy sand stained with dark brown (10YR 4/3); weak, fine, granular structure; single grain; firm in place, but friable if crushed; very strongly acid (pH 4.5); 10 to 15 percent, by volume, consists of fragments of rock; gradual, irregular lower boundary; 10 to 14 inches thick.

CHESTER AND DELAWARE COUNTIES, PENNSYLVANIA

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GUIDE TO MAPPING UNITS

[See table 1, p. 13, for productivity ratings of the soils, and table 8, p. 58, for the acreage and proportionate extent of the soils. To find the engineering properties of the soils, including soils in rural development, see the section beginning on p. 28. Dashes indicate the soil materials are variable and, therefore, the soil was not given the particular classification]

Map symbol	Soils	Page	Capability unit	Page	Woodland group	Page	Building group	Page
AgA	Aldino silt loam, 0 to 3 percent slopes.....	61	IIw-1	9	9	25	12	57
AgB2	Aldino silt loam, 3 to 8 percent slopes, moderately eroded..	61	IIIw-1	9	9	25	12	57
AsB2	Aldino very stony silt loam, 0 to 8 percent slopes, moderately eroded.	61	VIIIs-2	12	9	25	12	57
BdA	Bedford silt loam, 0 to 3 percent slopes.....	62	IIw-1	7	3	25	10	57
BdB	Bedford silt loam, 3 to 8 percent slopes.....	62	IIE-6	7	8	25	10	57
BdB2	Bedford silt loam, 3 to 8 percent slopes, moderately eroded..	62	IIE-6	7	8	25	10	57
BeA	Beltsville silt loam, 0 to 3 percent slopes.....	62	IIw-1	7	7	24	10	57
BeB2	Beltsville silt loam, 3 to 8 percent slopes, moderately eroded..	62	IIE-6	7	7	24	10	57
Bo	Bowmansville silt loam.....	63	Iw-5	11	11	25	13	57
BrB2	Brandywine loam, 3 to 8 percent slopes, moderately eroded..	64	IIE-5	7	13	25	7	56
BrC	Brandywine loam, 8 to 15 percent slopes.....	64	IIE-4	8	15	26	8	56
BrC2	Brandywine loam, 8 to 15 percent slopes, moderately eroded..	64	IIIe-4	8	15	26	8	56
BrC3	Brandywine loam, 8 to 15 percent slopes, severely eroded....	64	IIE-4	10	15	26	8	56
BrD	Brandywine loam, 15 to 25 percent slopes.....	64	Ive-4	10	15	26	8	56
BrD2	Brandywine loam, 15 to 25 percent slopes, moderately eroded.	64	Ive-4	10	15	26	8	56
BrD3	Brandywine loam, 15 to 25 percent slopes, severely eroded..	64	VIe-2	11	15	26	8	56
BrE	Brandywine loam, 25 to 40 percent slopes.....	65	VIe-	11	1	26	9	56
BrB	Brandywine very stony loam, 0 to 8 percent slopes.....	5	Is-1	11	1	25	7	56
BrD	Brandywine very stony loam, 8 to 25 percent slopes.....	65	VIIs-1	11	15	26	8	56
BrF	Brandywine very stony loam, 25 to 50 percent slopes.....	65	VIIIs-1	12	17	26	9	56
BtB2	Brecknock channery silt loam, 3 to 8 percent slopes, moder- ately eroded.	66	IIE-5	7	1	20	5	55
BtC2	Brecknock channery silt loam, 8 to 15 percent slopes, mod- erately eroded.	66	IIIe-4	8	3	21	6	55
BtC3	Brecknock channery silt loam, 8 to 15 percent slopes, se- verely eroded.	66	Ive-4	10	3	21	6	55
BtD2	Brecknock channery silt loam, 15 to 25 percent slopes, mod- erately eroded.	66	Ive-4	10	3	21	6	55
BtD3	Brecknock channery silt loam, 15 to 25 percent slopes, se- verely eroded.	66	VIe-2	11	3	21	6	55
BtE3	Brecknock channery silt loam, 25 to 35 percent slopes, se- verely eroded.	66	VIIe-1	12	5	24	9	56
BvB	Brecknock very stony silt loam, 0 to 8 percent slopes.....	66	VIIs-1	11	1	20	5	55
BvD	Brecknock very stony silt loam, 8 to 25 percent slopes.....	66	VIIs-1	11	3	21	6	55
BvF	Brecknock very stony silt loam, 25 to 50 percent slopes.....	66	VIIIs-1	12	5	24	9	56
BxB2	Bucks silt loam, 3 to 8 percent slopes, moderately eroded....	67	IIE-2	6	1	20	3	54
ByA	Butlertown silt loam, 0 to 3 percent slopes.....	68	IIw-1	7	1	20	3	54
ByB2	Butlertown silt loam, 3 to 8 percent slopes, moderately eroded.	68	IIE-6	7	1	20	3	54
CaA	Calvert silt loam, 0 to 3 percent slopes.....	68	Vw-1	11	11	25	12	5
CaB	Calvert silt loam, 3 to 8 percent slopes.....	68	VIw-2	11	11	25	12	57
CaB2	Calvert silt loam, 3 to 8 percent slopes, moderately eroded..	68	VIw-2	11	11	25	12	57
CdA	Chester silt loam, 0 to 3 percent slopes.....	69	I-1	6	1	20	1	54
CdA2	Chester silt loam, 0 to 3 percent slopes, moderately eroded..	69	IIE-2	6	1	20	1	54
CdB	Chester silt loam, 3 to 8 percent slopes.....	70	IIE-2	6	1	20	1	54
CdB2	Chester silt loam, 3 to 8 percent slopes, moderately eroded..	70	IIE-2	6	1	20	1	54
CdB3	Chester silt loam, 3 to 8 percent slopes, severely eroded....	70	IIIe-2	8	1	20	1	54
CdC	Chester silt loam, 8 to 15 percent slopes.....	70	IIIe-2	8	3	21	2	54
CdC2	Chester silt loam, 8 to 15 percent slopes, moderately eroded..	70	IIIe-2	8	3	21	2	54
CdC3	Chester silt loam, 8 to 15 percent slopes, severely eroded....	70	Ive-2	9	3	21	2	54
CgB	Chester very stony silt loam, 0 to 8 percent slopes.....	70	VIIs-1	11	1	20	5	55
CgC	Chester very stony silt loam, 8 to 15 percent slopes.....	71	VIIs-1	11	3	21	6	55
Ch	Chewacla silt loam.....	71	IIw-2	7	7	24	13	57
CkB2	Chrome gravelly silty clay loam, 3 to 8 percent slopes, mod- erately eroded.	72	IIE-5	7	13	25	7	56
CkC2	Chrome gravelly silty clay loam, 8 to 15 percent slopes, mod- erately eroded.	72	IIIe-4	8	15	26	8	56
CkC3	Chrome gravelly silty clay loam, 8 to 15 percent slopes, se- verely eroded.	72	Ive-4	10	15	26	8	56
CkD2	Chrome gravelly silty clay loam, 15 to 25 percent slopes, moderately eroded.	72	Ive-4	10	15	26	8	56
CkD3	Chrome gravelly silty clay loam, 15 to 25 percent slopes, se- verely eroded.	72	VIe-2	11	15	26	8	56
CkE2	Chrome gravelly silty clay loam, 25 to 40 percent slopes, moderately eroded.	72	VIIe-1	12	17	26	9	56
CmA	Conestoga silt loam, 0 to 3 percent slopes.....	73	I-1	6	2	21	1	54
CmA2	Conestoga silt loam, 0 to 3 percent slopes, moderately eroded.	73	IIE-1	6	2	21	1	54
CmB2	Conestoga silt loam, 3 to 8 percent slopes, moderately eroded.	73	IIE-1	6	2	21	1	54

(27, §201, cont'd)

(27, §201, cont'd)

CONDITIONAL USE - a use permitted in a particular zoning district by the Borough Council pursuant to the provisions of this Chapter and Article VI of the Pennsylvania Municipalities Planning Code, 53 P.S. §10601 et seq. [Ord. 835]

CORNER LOT - A lot or a portion thereof located at the junction of and abutting or two (2) or more streets and not extending more than fifty (50) feet from the street line of the greater frontage of the lot and not more than one hundred (100) feet from the street line of the lesser frontage.

COUNCIL - Council shall mean the Borough Council of the Borough of Folcroft.

COURT - An unencumbered area other than a front yard, side yard or rear yard, on the same lot with the building.

DECISION - Final adjudication of any board or other body granted jurisdiction under any land use ordinance or this Chapter to do so, either by reason of the grant of exclusive jurisdiction or by reason of appeals from determinations. All decisions shall be appealable to the court of common pleas of the county and judicial district wherein the Borough of Folcroft lies. [Ord. 835]

DEPTH OF LOT - The mean distance from the street line at the front of a lot to the extreme rear line of the lot measured parallel to the mean direction of the side lines thereof.

DETERMINATION - Final action by an officer, body or agency charged with the administration of any land use ordinance or applications thereunder, except the following:

1. The Borough Council;
2. The Zoning Hearing Board; or
3. The Planning Commission, only if and to the extent the Planning Commission is charged with final decision on preliminary or final plans under the subdivision and land development or planned residential development ordinances. Determinations shall be appealable only to the boards designated as having jurisdiction for such appeal.

[Ord. 835]

DISTRICT - A District includes all buildings and lots within certain designated boundaries as indicated on the Zoning Map or maps.

ENCUMBERED AREA - That portion of a lot occupied by buildings.

INNER COURT - A court not extending to a street or way, or to a front or rear yard.

INTERIOR LOT - A lot the side lines of which do not abut upon the street.

KENNEL - the act of keeping three (3) or more dogs and cats in one (1) or more structures on the same lot. [Ord. 835]

LOT - A designated parcel, tract or area of land established by a plat or otherwise as permitted by law and to be used, developed or built upon as a unit. [Ord. 835]

(27, Part 2)

LOT AREA - A parcel of land which is occupied, or is to be occupied by one (1) principal building, together with any accessory buildings customarily incidental to such principal building, and such open spaces as are arranged or desired to be used in connection with such principal buildings, such open spaces to be not less than the minimum required by this Chapter 27. The area of a lot shall be that portion of the lot or parcel of land lying between the two (2) side property lines and between the rear property line and the nearest street line. In the case of a property which does not front on a street, the area of the lot shall be that portion of the lot or parcel of land lying between the two (2) side property lines and between the rear property and the line of the easement or right-of-way giving access to such area.

MINOR OR COMMUNITY GARAGE - A building or group of buildings, not a private garage, one (1) story in height, used for the storage, maintenance and repair of automobiles.

MIXED OCCUPANCY - Occupancy of a building or land for more than one use.

MOBILEHOME - A transportable, single family dwelling intended for permanent occupancy, contained in one (1) unit or in two (2) or more units designed to be joined into one (1) integral unit capable of again being separated for repeated towing, which arrives at a site complete and ready for occupancy except for minor and incidental unpacking and assembly operations, and constructed so that it may be used without a permanent foundation. [Ord. 835]

MOBILEHOME LOT - A parcel of land in a mobilehome park, improved with the necessary utility connections and other appurtenances necessary for the erection thereon of a single mobilehome. [Ord. 835]

MOBILEHOME PARK - A parcel or contiguous parcels of land which has been so designated and improved that it contains two (2) or more mobilehome lots for the placement thereon of mobilehomes. [Ord. 835]

MUNICIPAL AUTHORITY - a body politic and corporate created pursuant to the Act of May 2, 1945 (P.L. 382, No. 164), known as the "Municipalities Authority Act of 1945." [Ord. 835]

NONCONFORMING STRUCTURE - A structure or part of a structure manifestly not designed to comply with the use or extent of use provisions of this Chapter or amendment heretofore or hereafter enacted, where such structure lawfully existed prior to the enactment of this Chapter or amendment or prior to the application of this Chapter or amendment to its location by reason of annexation. Such nonconforming structures include, but are not limited to, nonconforming signs. [Ord. 835]

NONCONFORMING LOT - A lot the area or dimension of which was lawful prior to the adoption or amendment of this Chapter, but which fails to conform to the requirements of the zoning district in which it is located by reason of such adoption or amendment. [Ord. 835]

NONCONFORMING USE - A use, whether of land or of structure, which does not comply with the applicable use provisions in this Chapter or amendment heretofore or hereafter enacted, where such use was lawfully in existence prior to the enactment of this Chapter or amendment, or prior to the application of this Chapter or amendment to its location by reason of annexation. [Ord. 835]

(27, §201, cont'd)

(27, §201, cont'd)

OFFICE BUILDING - A building designed or used primarily for office purpose, no part of which is used for manufacturing or dwelling other than for a watchman or janitor.

OPEN COURT - A court extending to a street or yard, but not of the full length of the building.

PRIVATE GARAGE - A building or any portion thereof used for the storage of one (1) or more automobiles owned and used by the owner or tenant of the lot on which it is erected for the purpose accessory to the use of the lot and for the storage of not exceeding two (2) additional automobiles owned or used by others for a similar purpose, if they are stored in the same room in which the automobile or automobiles of the owner or tenant are stored.

PROFESSIONAL OFFICE - The office of a person engaged in the profession of a physician, dentist, lawyer, clergyman or other similar types of learned professional and the office of an insurance agent or broker or other similar types of calling.

PUBLIC GARAGE - A building other than a private or minor garage, one (1) or more stories in height, used for the storage, maintenance and repair of automobiles.

PUBLIC GROUNDS - Includes:

- A. Parks, playgrounds, trails, paths and other recreational areas and other public areas;
- B. Sites for schools, sewage treatment, refuse disposal and other publicly owned or operated facilities; and
- C. Publicly owned or operated scenic and historic sites.

[Ord. 835]

PUBLIC HEARING - A formal meeting held pursuant to public notice by the Borough Council or Planning Commission, intended to inform and obtain public comment, prior to taking action in accordance with this Chapter.
[Ord. 835]

PUBLIC MEETING - A forum held pursuant to notice under the Act of July 3, 1986 (P.L. 388, No. 84), known as the "Sunshine Act," 53 P.S. §§271 et seq. [Ord. 835]

PUBLIC NOTICE - Notice published once each week for two (2) successive weeks in a newspaper of general circulation in the Borough of Folcroft. Such notice shall state the time and place of the hearing and the particular nature of the matter to be considered at the hearing. The first publication shall not be more than thirty (30) days and the second publication shall not be less than seven (7) days from the date of the hearing. [Ord. 835]

REAR YARD - Required open space extending across the whole width of the lot in the rear of the main buildings.

REPORT - Any letter, review, memorandum, compilation or similar writing made by any body, board, officer or consultant other than a solicitor to any other body, board, officer or consultant for the purpose of assisting the recipient of such report in the rendering of any decision or determination. All reports shall be deemed recommendatory and advisory

(27, §201, cont'd)

(27, §201, cont'd)

only and shall not be binding upon the recipient, board, officer, body or agency, nor shall any appeal lie therefrom. Any report used, received or considered by the body, board, officer or agency rendering a determination or decision shall be made available for inspection to the applicant and all other parties to any proceeding upon request, and copies thereof shall be provided at cost of reproduction. [Ord. 835]

SEMI-DETACHED DWELLING OR TWIN DWELLING - Two (2) attached dwellings when separated from the ground up by a division wall and with no communicating openings, designed and occupied exclusively as a private home or residence for not more than one (1) family in each.

SET-BACK - The distance between the street line and the nearest part of any building on the lot, excluding cornices, eaves, or gutters projecting not more than thirty (30) inches, steps, one (1) story porches, bay windows not extending through more than one (1) story and not projecting more than five (5) feet, chimney, balconies, and terraces.

SIDE YARD - The required open space extending along the side lot line from the street line to a depth of at least seventy-five (75%) percent of the lot.

SINGLE FAMILY DWELLING - A building designed for and occupied exclusively as a home or residence for not more than one (1) family.

SPECIAL EXCEPTION - a use permitted in a particular zoning district pursuant to the provisions of this Chapter and Articles VI and IX of the Pennsylvania Municipalities Planning Code, 53 P.S. §§10601 et seq., 10901 et seq. [Ord. 835]

STABLE - Any building, structure, or portion thereof which is used in whole or in part for the shelter or care of horses, cattle, either permanently or transiently.

STREET - includes street, avenue, boulevard, road, highway, freeway, parkway, lane, alley, viaduct or any other ways used or intended to be used by vehicular traffic or pedestrians whether public or private. [Ord. 835]

STREET LINE - The line defining the legal width of a street on which a lot abuts.

The dividing line between a street as confirmed upon the Borough Plan and the abutting property, or between the legal lines of a street, as laid out and the lot, if not confirmed upon the Borough Plan.

STREET WALL - The wall of a building nearest the street line.

STREET WIDTH - The shortest distance between the street lines of a street as established upon the Borough Plan, or between the legal lines of said street as laid out, if not confirmed upon the Borough Plan.

STRUCTURAL ALTERATION - Any change in the supporting or structural members of a building or structure, such as the bearing walls, supporting partitions, columns, beams or girders.

STRUCTURE - any man-made object having an ascertainable stationary location on or in land or water, whether or not affixed to the land. [Ord. 835]

(27, §201, cont'd)

(27, §201, cont'd)

TELEPHONE CENTRAL OFFICE - A building and its equipment, erected and used for the purpose of facilitating transmission and exchange of telephone messages between subscribers and other business of the Telephone Company, but in a residential district not to include public business facilities, storage of material, trucks or repair facilities, or housing or repair crews.

TERRACE - A natural or artificial embankment between a building and its lot lines the height of terrace shall be the difference in elevation between the curb level and the highest point of the embankment.

THROUGH LOT - A through lot is an inside lot having a frontage on two (2) streets.

TWO-FAMILY DWELLING - A building designed for and occupied exclusively as a private home or residence for two (2) families.

UNENCUMBERED AREA - That portion of a lot not occupied by buildings.

USE OF A BUILDING - Any and every use conducted within a building or accessory thereto.

VARIANCE - Relief granted pursuant to the provisions of this Chapter and Articles VI and IX of the Pennsylvania Municipalities Planning Code, 53 P.S. §10101 et seq. [Ord. 835]

VERANDA - A roofed open structure projecting from the front, side or rear wall of the building.

YARD - An open unoccupied space on the same lot with a building open and unobstructed from the ground to the sky.

(Ord. 320, 4/11/1955, §200; as amended by Ord. 835, 12/10/1990)

(27, §910)

(27, §910)

B. (E) Restricted Industrial District.

§910. Purpose. In (E) Restricted Industrial Districts the following regulations shall apply. (Ord. 332, 11/2/1956, §900A)

§911. Use and Occupancy Regulations. No building may be erected, altered or used, and no lot or premises may be used for any trade, industry or business that is noxious or offensive by reason of the emission of odors, dust, smoke, gas, fumes, vibrations, noise or fire hazard. (Ord. 332, 11/2/1956, §901A)

§912. Premises Not Used for Lawful Purpose. A building may be erected, altered or used and a lot or premises may be used for any lawful purpose, except the following:

- Abattoirs
- Acetylene gas manufacture
- Acid manufacture
- Ammonia, bleaching powder or chlorine manufacture
- Animal hospitals
- Arsenal
- Asphalt manufacture or refining
- Automobile grave-yards
- Candle manufacture
- Celluloid manufacture
- Coke ovens
- Commercial dog kennels
- Creosote treatment or manufacture
- Disinfectants manufacture
- Distillation of bones, coal or wood
- Dog pens, or dog pounds
- Dumps
- Dyestuff manufacture
- Extermination and insect poison manufacture
- Emery cloth and sandpaper manufacture
- Fat rendering
- Fertilizer manufacture
- Fish smoking and curing
- Glue, size or gelatine manufacture
- Fireworks or explosive manufacture or storage
- Lamp black manufacture

(27, §912, cont'd)

(27, §912, cont'd)

Match manufacture
 Oil cloth or linoleum manufacture
 Oiled or rubber goods manufacture
 Paint, oil, shellac, turpentine or varnish manufacture
 Petroleum refining or storage
 Piggeries
 Plating works
 Potash works
 Printing ink manufacture
 Pyroxylin manufacture
 Rubber, caoutchouc or gutta percha manufacture or treatment
 Salt works
 Sauerkraut manufacture
 Shoe blacking manufacture
 Smelters
 Soap manufacture
 Soda and compound manufacture
 Stock yards
 Stove polish manufacture
 Sulphuric, nitric or hydrochloric acid manufacture
 Tallow, grease, or lard manufacture or refining
 Tanning, curing or storage of leather rawhides or skins
 Truck terminal
 Tar distillation or manufacture
 Tar roofing or water proofing manufacture
 Vinegar manufacture
 Wool pulling or scouring
 Yeast plant.

(Ord. 332, 11/2/1956, §902A)

§913. Set-backs. An office building shall not exceed three (3) stories in height above ground level. No other building shall be over two (2) stories in height above ground level. All office buildings shall have a setback of at least twenty-five (25) feet from the property line when contiguous to a residential district. A planted and/or landscaped green space, at least ten (10) feet in width, shall be provided within the aforesaid twenty-five (25) feet setback. An office building shall not exceed forty-five (45) feet in height above ground level. No other build-

(27, §913, cont'd)

(27, §913, cont'd)

ing shall be over thirty-five (35) feet in height above ground level. If a lot is contiguous to a residentially zoned district, the building area shall not exceed one-third (1/3) of the lot area, as said terms are defined in §200 of this Chapter 27. If a lot is not contiguous to a residentially zoned district, the building area shall not exceed forty-two (42%) percent of the lot area. There shall be a front setback, in all cases, of at least twenty-five (25) feet. All buildings shall have side yards, of open spaces, at least twenty-five (25) feet wide, from any building to the street line or the nearest line of adjoining properties, as the case may be. All buildings shall have rear yards, of open space, from the building to the street line or the nearest line of adjoining properties at least ten (10) feet wide. (Ord. 332, 11/2/1956, §903A; as amended by Ord. 612, 11/11/1974, §903A; and by Ord. 623, 6/24/1975, §903A)

§914. Dwellings. No dwellings for human beings shall be erected. No building shall be used for dwellings for human beings. No human beings shall dwell in such districts, permanently or temporarily. (Ord. 332, 11/2/1956, §904A)

(27, §1500)

(27, §1500)

Part 15

Off-Street Parking and Loading

§1500. Purpose. For the purposes of this Part, the term "off-street parking space" is defined as "a garage or structure or outdoor paved area, large enough to park the vehicle or vehicles involved, connected by a driveway useable in any weather, to a street or alley". No part of the right-of-way of any street or alley shall be used as an off-street parking space. An outdoor parking space, where no building or structure is involved shall be deemed to be part of the open space on the lot on which it is located. No parking space shall be provided, nor parking permitted in front yard areas, unless it is impossible to provide same in any other open area on the premises and unless authorized as a Special Exception. (Ord. 320, 4/11/1955, §1100)

§1501. Provisions Residential. In the case of premises used for residential uses, provision must be made on the premises, for an off-street parking space for the parking of all vehicles used by any person or persons customarily residing in the premises. (Ord. 320, 4/11/1955, §1101)

§1502. Business Provisions. In the case of premises used for business, or commerce, or agriculture or industry, provision must be made, on the premises for an off-street parking space for the parking of all vehicles used in connection with the business, commercial enterprise, agriculture use, or industry involved. (Ord. 320, 4/11/1955, §1102)

§1503. Multi-Use Provisions. If any premises is used for more than one type of use then provisions must be made, on the premises, for off-street parking spaces, for all types of use involved as hereinbefore set forth. (Ord. 320, 4/11/1955, §1103)

§1504. Parking Requirements.

1. In connection with any building or structure hereafter erected, constructed or altered, any lot or premises hereafter prepared, open or brought into operation to be used in whole or in part as a place of public entertainment and amusement or as a hotel, apartment house, restaurant, or eating place or public market, there shall be provided and maintained either on the same lot, or an adjacent lot, or easily accessible lot located not over one hundred (100) feet from the main or other entrance to said building or place of public entertainment, accommodation, or domicile, garage facilities or parking places for the accommodation of motor vehicles of the patrons or occupants of such establishments.

2. Parking Space.

A. Not less than one (1) off-street parking space, with proper access from a street, road, court, or alley, shall be provided on any lot on which a dwelling is hereafter erected or converted, provided that, for multiple dwelling, not less than one (1) off-street parking space shall be provided for each family unit.

B. Off-street parking space, with proper access from a street, road, court or alley shall be provided in the amounts indicated, on or

(27, §1504(2)(B), cont'd)

(27, §1504(2)(B), cont'd)

near any lot on which the following types of uses are hereafter situated, provided that such requirements may be decreased or waived when authorized as a special exception:

- (1) Tourist house: One (1) space for each two (2) guest bedrooms.
- (2) Hotel: One (1) space for each five (5) guest bedrooms.
- (3) Restaurant, cafe, or tearoom: One (1) space for fifty (50) square feet of floor space devoted to patron use.
- (4) Theatre, auditorium, stadium, recreational establishment, or other place of public assemblage, except churches: One (1) space for every fifteen (15) seats.
- (5) Banks, business or professional offices: One (1) space for each four hundred (400) square feet.
- (6) Commercial use, other than those specified in 1 thru 5 above:

- (a) Having a floor area of not more than one thousand (1,000) square feet--no parking space required.

- (b) Having a floor area of more than one thousand (1,000), but not more than two thousand (2,000) square feet--one (1) space for each two hundred and fifty (250) square feet, or portion thereof, in excess of one thousand (1,000) square feet.

- (c) Having a floor area of more than two thousand (2,000) square feet--four (4) spaces plus one (1) space for each one hundred and fifty (150) square feet, or portion thereof in excess of two thousand (2,000) square feet.

C. Off-street parking facilities existing at the effective date of this §1504 [October 12, 1959] shall not subsequently be reduced to an amount less than required under this Chapter for a similar alteration, new building or new use. Off-street parking facilities provided to comply with the provisions of this §1504 shall not subsequently be reduced below the requirements of this Chapter.

3. Loading and Unloading Space. Off-street loading and unloading space with proper access from a street, road court or alley, shall be provided on any lot on which a building for trade, business or industry is hereafter erected or substantially altered.

(Ord. 394, 10/12/1959)

ARTICLE 2

DEFINITIONS

200 INTERPRETATION OF LANGUAGE

Unless otherwise expressly stated, the following words and phrases shall be construed throughout this Ordinance to have the meaning indicated herein. Words used in the present tense include the future. The singular shall include the plural, and the plural shall include the singular. The word "building" includes the word "structure". The phrase "used for" includes "arranged for", "designed for", "intended for", "maintained for", or "occupied for". The word "person" includes an individual, corporation, partnership, incorporated association, or any other similar entity. The words "includes" or "including" shall not limit the term to the specified examples but are intended to extend their meaning to all other instances of like kind and character. The words "shall" and "will" are mandatory and not discretionary, and the word "may" is permissive. Terms not defined herein shall have the meaning customarily assigned to them.

201 DEFINITION OF TERMS

In this Ordinance, words, terms and phrases shall have the following meanings:

ABANDONMENT

Where a building or land is abandoned for six (6) consecutive months for residential uses, and twelve (12) consecutive months for nonresidential uses, whereby the owner discontinues the use or occupancy, the building or structure shall be declared abandoned and may be required to be removed. In the case of abandonment of a nonconforming use, Article 18, Nonconforming Uses, Structures and Lots applies.

ACCESSORY STRUCTURE

A structure detached from a principal building on the same lot and incidental and subordinate to the principal building or use.

ACCESSORY USE

A use of land or of a building or portion thereof customarily incidental and subordinate to the principal use of the land or building and located on the same lot with such principal use.

ADULT USE

Any establishment that permits patrons to hear, view, read, lease, purchase, trade, exchange and/or participate in activities, publications, movies, videotapes, and/or live or televised performances which have as their dominant theme explicit sexual activities and/or the exhibition of human anatomy which is not normally seen in public or in other commercial or club-type operations and which may or may not exclude minors by virtue of age. Implicit in this definition are the following: bookstores, movie theaters, restaurants, bars, tattoo parlors, fortune tellers, tarot card readers, body piercing, phrenology, and any other operation which qualifies for inclusion by virtue of the above wording, regardless of the type of other uses or operations which may also be conducted on or in the property or properties involved.

ALLEY

A narrow service access to the rear of urban buildings providing service areas, parking access, and utility easements.

ALTERATION

Any change or rearrangement in the supporting members of an existing building, such as bearing walls, columns, beams, girders, or interior partitions, as well as any change in doors, windows, means of ingress and egress, or any enlargement to or diminution of a building or structure, or the moving of a building from one location to another

ALTERATION, INCIDENTAL

Modifications to an existing structure that are of a cosmetic nature, replacement of utilities, or rearrangement of non-load-bearing partitions

AMUSEMENT DEVICE

Any mechanical, electrical, electromechanical device, machine, or apparatus whatsoever for the playing of games and amusements, which devices or apparatus are commonly known as "pinball machines," "video games," and "jukeboxes," or upon which games are played, or any device on which music is played after the insertion therein of a coin or other disc, slug, or token or for which fees are paid to an attendant.

ANTENNA

Any device or mechanism used in the collection, transmission, routing, or receiving of telecommunications transmissions, radio signals, or radio frequency energy, including but not limited to, use by or provisions of wireless communications, cellular communications, and personal communications services.

ANTENNA SUPPORT STRUCTURE

Any pole, telescoping mast, tower, tripod, or any other structure which supports or has attached to it an antenna or antennae.

APARTMENT BUILDING

A structure containing three (3) or more apartment units.

APARTMENT UNIT

One (1) or more rooms with individual access, private bath and kitchen facilities, comprising an independent, self-contained dwelling unit in a building.

APPLICANT

A landowner or developer, as hereinafter defined, who has filed an application for development including his heirs, successors, and assigns.

ASSISTED CARE FACILITY

Residences for the frail elderly that provide rooms, meals, personal care, and supervision of self-administered medication. They may provide other services such as recreational activities, financial services, and transportation.

AUTOMOBILE-ORIENTED USE

In contrast to pedestrian-oriented uses, these uses are generally related to, dependent on, or designed to accommodate customers traveling in automobiles. They are generally located in more remote parts of a community than pedestrian-oriented uses. Frequently, amenities such as sidewalks, trees, benches, and similar amenities are not provided in locations where these uses are found. Typical automobile-oriented uses are drive-through establishments, big box retail establishments, automobile sales, repair, and service, wholesale businesses, and similar uses.

BASEMENT

An enclosed area located partly or completely below grade. A basement shall be considered a story for the purpose of height measurement if the basement ceiling is five (5) feet or more above the average grade level around the building.

BIG BOX RETAIL

Retail store establishments in freestanding, one-story buildings, with floor areas of 100,000 square feet or more. Examples of such uses are Walmart, Cosco, and various retail clubs such as Sam's and similar establishments.

BILLBOARD

A sign which directs attention to a business, commodity, service, or entertainment conducted, sold, or offered at a location other than the premises on which the sign is located.

BOARD

The Folcroft Borough Zoning Hearing Board.

BOROUGH

The Borough of Folcroft.

BUFFER

A strip of land intended to separate one use or district from another by providing an open, unobstructed space intended to absorb, shield, or block noise, light, view, or other impacts of the use having the greater impact. Buffers shall be planted with grass or other ground cover and may be part of the required yards. Buffers are often employed between a residential district and abutting non-residential district having greater impacts. There shall be no structures, equipment, storage, parking, or trash disposal in buffer areas. Dimensions of buffers shall be as required by the zoning district.

BUILDING

Any structure, either temporary or permanent, having a roof or other covering and designed or used for shelter or enclosure of any person, animal, property, or equipment of any kind.

BUILDING CODE OFFICIAL (BCO)

The individual designated by Borough Council to enforce the provisions of the Pennsylvania Uniform Construction Code (UCC) and other ordinances. The BCO may perform duties of the Zoning Officer in certain circumstances outlined in Article 20 – Administration, Enforcement and Amendment. The Borough Manager is also included in this term and may perform or direct the performance of certain enforcement functions.

BUILDING COVERAGE

The ratio obtained by dividing the gross floor area within of all principal and accessory buildings on a lot by the total area of the lot upon which buildings are located.

BUILDING HEIGHT

The vertical distance measured from the average level of the ground surrounding the structure to the top of the highest point of the roof for flat roofs, and to the ridge of the gable, hip, and gambrel roofs. Chimneys spires, towers, steeples, mechanical equipment, tanks, vessels, antennas, and similar projections of the buildings not intended for human occupancy shall not be included in calculating the height, unless specifically stated otherwise in this Ordinance.

BUILDING LINE

A line that is parallel to the street right-of-way line, which establishes the actual location of the front wall of the principal building on the lot.

BUILDING SETBACK LINE

A line parallel to the street right-of-way line, at a distance that is equal to the depth of the front yard required for the district in which the lot is located.

BUSINESS/INDUSTRIAL PARK

A tract of land that has been planned, developed, and operated as an integrated facility for a number of individual industrial or business establishments, with special attention to circulation, parking, utility needs, aesthetics, and compatibility.

CAR WASH, RESIDENTIAL

A place of business whose primary service is cleaning, washing, and waxing of automobiles and trucks with a maximum of two (2) axles.

CAR WASH, INDUSTRIAL

A place of business whose primary service is cleaning, washing, and waxing of commercial vehicles with more than two (2) axles.

CELL SITE

A tract or parcel of land that contains the wireless, cellular, or personal communications service antenna, its antenna support structure, accessory buildings, and parking, and may include other uses associated with and ancillary to providing wireless communications, cellular communications, or personal communications services.

CELLULAR COMMUNICATION FACILITY

Includes but is not limited to the antenna, antenna support structures, and cell sites. (See Cell Site above).

CERTIFICATE OF OCCUPANCY

A document issued by a duly authorized local authority allowing the occupancy of a building and certifying that the structure or use has been constructed or will be used in compliance with all applicable local codes and ordinances.

CHILD DAY CARE CENTER

A facility that is licensed to provide care for seven (7) or more children unrelated to the operator, where the child care areas are not being used as a family residence.

COMMERCIAL MOTOR VEHICLE

A motor vehicle designed or used to transport passengers or property if the vehicle:

1. Has a gross vehicle weight rating of 26,001 or more pounds or such lesser rating as the Department of Motor Vehicles shall adopt under their applicable provisions,
2. Is designed to transport ten (10) or more passengers,
3. Is a school bus,
4. Is transporting hazardous materials,

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5. Is motorized construction equipment,
6. Includes snowplow attachments during non-snow events,
7. Has permanent decals depicting a for-profit company, and
8. Has ladder racks or other general contractor equipment in plain view that is used for commercial purposes.

COMMON DRIVEWAY

A single driveway providing vehicular access to two or more properties. Generally, one half of the driveway is in ownership of one owner and the other half in ownership of the abutting owner. New common driveways shall not be permitted in the Borough after adoption of this Ordinance.

COMMON OPEN SPACE

Land within or related to a development, not individually owned or dedicated for public use, that is designed and intended for the common use or enjoyment of the residents of the development and their guests. This land may include such complementary structures and improvements as are necessary and appropriate.

COMMUNITY DEVELOPMENT OBJECTIVES (CDO'S)

A reflection of the policy goals and vision of the Borough of Folcroft in fundamental municipal areas such as land use, population density, housing, economic development, transportation, natural resources, and other areas deemed necessary for inclusion by the Borough created in lieu of a recent comprehensive plan. The adopted CDO's for the Borough are located following the Table of Contents in this Ordinance.

COMPREHENSIVE PLAN

A comprehensive, long-range plan intended to guide the growth and development of a community or region, and one that includes analysis, recommendations, and proposals for the community's population, economy, housing, transportation, community facilities, land use, and related areas.

CONDITIONAL USE

A use specifically listed within this Ordinance pursuant to Article IX of the MPC and the applicable provisions of Article 16 of this Ordinance. Borough Council may only authorize such use after meeting the requirements of Article 16 and the MPC.

CONSTRUCTION

The building, reconstruction, renovation, repair, extension, expansion, alteration, or relocation of a structure, including the placement of mobile homes.

CONVENIENCE STORE

A retail store containing less than 5,000 square feet of gross floor area and that is open 15 to 24 hours per day. It is designed to attract and depends upon a large volume of traffic and should have sufficient off-street parking in accordance with Article 13, Parking Regulations.

CONVERSION

A change in the use of a building, such as the change of a single-family dwelling into a multi-family dwelling, or the change of a residential or retail use to offices. Such change may be accomplished without subdivision or the introduction of a new owner. New conversions shall not be permitted in the Borough upon adoption of this Ordinance.

CUBIC CONTENT

The total three-dimensional volume of a building (height multiplied by length multiplied by width), but excluding that portion of a stack or other projection that is higher than the highest point of the principal building.

DENSITY, GROSS

The number of dwelling units per acre. This term refers to all the land within the boundaries of a particular area, including streets, rights-of-way, easements, etc.

DENSITY, HIGH

For the purposes of this Ordinance, this term refers to residential development that over 15 dwelling units per acre.

DENSITY, LOW

For the purposes of this Ordinance, this term refers residential development shall be under 7 dwelling units per acre.

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DENSITY, MEDIUM – 7-14

For the purposes of this Ordinance, this term refers to residential development between 7 and 15 units per acre.

DENSITY, NET

The number of dwelling units per acre. This term refers to land within the boundaries of a particular area, but excludes streets, rights-of-way, and easements in calculating net density.

DETENTION BASIN

A stormwater facility that collects and temporarily stores surface runoff and releases it at a controlled rate.

DEVELOPER

Any landowner, agent of such landowner, or tenant with the permission of such landowner who makes or causes to be made subdivision, land development, or any other development.

DEVELOPMENT

Any man-made change to improved or unimproved real estate, including but not limited to, buildings, streets, and other paving, utilities, dredging, filling, grading, excavation, or drilling operations and the subdivision of land.

DISTRIBUTION WAREHOUSE

An establishment primarily engaged in the receipt, storage, and distribution of goods, products, cargo, and materials, including shipment by rail or motor vehicle.

DRIVE-THROUGH ESTABLISHMENT

An establishment which offers in-car service or takeout service including but not limited to, financial institutions, food stores, and restaurants, but not including drive-in theaters.

DRIVEWAY

A private way used exclusively for circulation and ingress and egress to a street by the landowner or visitors of the lot.

DWELLING

A building or unit designed and constructed for residential use.

DWELLING, MULTI-FAMILY

A building containing three or more dwelling units, including units that are located above one another.

DWELLING, SINGLE-FAMILY ATTACHED (TOWN/ROW HOUSE)

A single-family dwelling unit within a building that has at least one (1) party wall in common with other dwelling units in the same row; known as a townhouse or rowhouse. After the effective date of this Ordinance, no such building shall be constructed with more than six (6) attached units.

DWELLING, SINGLE-FAMILY DETACHED

A building designed for and occupied exclusively as a residence for only one (1) family with yards on all sides of the dwelling.

DWELLING, SINGLE-FAMILY SEMI-DETACHED (TWIN)

Two (2) dwelling units, each accommodating one (1) family, which are attached side by side by means of a party wall, with each dwelling unit having only one (1) side yard.

DWELLING UNIT

A grouping of rooms designed, occupied, or intended for occupancy as separate living quarters, with cooking, sleeping, and sanitary facilities provided within the dwelling unit for the exclusive use of a single-family maintaining a household.

ENFORCEMENT NOTICE

A notice by an applicable Borough official concerning a violation of existing law.

FAÇADE

The wall of a building exterior that adjoins or fronts on a public street, park, or plaza.

Folcroft Borough Code

FAMILY

Any number of individuals living together as a single housekeeping unit when said individuals are related by blood, marriage, or adoption, including foster children; or not more than four (4) unrelated individuals living together as a single housekeeping unit with single kitchen facilities.

FAMILY-BASED COMMUNITY RESIDENCE FACILITY

A dwelling, licensed by the appropriate state agency, shared by persons requiring special care and their supervisors, who live together as a single housekeeping unit in a family-like environment. This facility is designed to create a residential environment for the developmentally disabled, mentally ill, retarded, handicapped, or similar groups unable to live without supervision. The maximum number of residents shall not exceed four (4), excluding supervisors. These facilities shall not be used to accommodate persons recovering from the effects of drugs or alcohol, or inmates of penal institutions.

FAMILY DAY CARE HOME

A home, other than the child's own home, operated for profit or not-for-profit, in which child care is provided at any one time to four (4), five (5), or six (6) children unrelated to the operator. All required certifications and other requirements must be met before operation begins.

FLOOR AREA, GROSS

The sum of the gross horizontal areas of the several floors of a building measured from the exterior face of exterior walls or from the centerline of a wall separating two buildings, but not including interior parking spaces, loading space for motor vehicles, or any space where the floor-to-ceiling height is less than six (6) feet. Gross floor area also includes but is not limited to the following:

- An elevator shaft, stairwell, and attic space providing headroom of six (6) or more feet.
- The floor areas of roofed terraces, exterior balconies, breezeways or porches where over 50 percent of the perimeter is enclosed.
- Any floor space used for dwelling purposes no matter where located within a building.

FLOOR AREA, NET

The total of all floor areas of a building, excluding stairwells and elevator shafts, equipment rooms, interior vehicular parking or loading, and all floors below the first or ground floor, except when used or intended to be used for human habitation or service to the public.

FOOD PREPARATION/CATERING

The preparation, packaging, separation, shrink-wrapping and vacuum sealing of food items for the purpose of later consumption; or the preparation, cooking, and baking of raw food items, generally in large quantities, for transport to off-site locations for consumption.

FOOD STORE

A retail establishment that primarily sells food items. A food store shall have not more than 20,000 square feet of floor area.

FREESTANDING BUILDING

Any building located within a development site which is separate from any group or cluster development on such site and which shall comply with the regulations of the district in which it is located.

FRONT-YARD PARKING

Any parking in front of the front building line of a structure not including off-street parking that is provided as part of a driveway and/or garage.

GARAGE, PRIVATE

An accessory use which is attached to or an integral part of a residential building or dwelling unit, or an accessory structure used for the storage of motor vehicles and other personal property owned and used by the residents of the residential building or dwelling unit.

GARAGE, PUBLIC

A building or structure available to the general public in which motor vehicles are temporarily stored but which is not used for the repair or maintenance thereof.

Folcroft Borough Code

GASOLINE SERVICE STATION

Any area of land, including structures thereon, or any building or part thereof that is used for the sale of gasoline or other motor vehicle fuel or accessories, and which may include facilities for lubricating, washing, or otherwise servicing motor vehicles, but which shall not include painting, body, and fender repairs.

GASOLINE STATION, SELF-SERVICE

A property and/or place of business where flammable or combustible liquids used as motor fuels are stored and dispensed from fixed equipment into the fuel tanks of motor vehicles by a person other than the service station attendant.

HAZARDOUS MATERIALS

Those chemicals or substances that are defined as "physical hazards" or "health hazards" in the most recently adopted version of the Uniform Construction Code.

HEALTH HAZARD

A classification of a chemical for which there is statistically significant evidence that acute or chronic health effects are capable of occurring in exposed persons. The term "health hazard" includes chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, neurotoxins, agents that are capable of acting on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes.

HOTEL

A structure in which lodging is provided for the accommodation of guests, offered to the public for compensation, which contains an office supervised by a person in charge at all hours with a majority of all rooms having direct access to the outside. "Hotel" does not include boardinghouse, lodging house, rooming house, personal care home, or group home.

IMPACT, HEAVY

Any use that poses a health hazard, a significant threat from fire, or involves the use of hazardous materials in any way that could endanger persons or property in the event of accidental discharge or combustion.

IMPACT, LIGHT OR MEDIUM

Any use whose impact is not heavy, as herein defined.

IMPERVIOUS SURFACE

The coverage of the lot or tract area by materials that prevent the percolation of water into the soil and generate stormwater runoff, such as buildings, streets, parking areas, driveways, and any other similar surfaces.

LABORATORY

A research, testing, experimental, or product development facility provided that any laboratory animals shall, at all times, be kept within completely enclosed buildings. All chemical, biological, or other substances, emissions, or by-products of the procedures or operations conducted within the laboratory shall be confined to the facility and not be permitted to escape or be emitted outside the facility.

LANDSCAPED PLANTING AREA

An area landscaped with grass, ground cover, shrubs, or similar plantings placed where required by this Ordinance and permanently maintained. See Article 15, General Regulations.

LIGHT INDUSTRY

Industrial processes where the finished item, material, or product does not exceed 30 cubic feet, which are conducted in an enclosed building and comply with Article 19, Performance Standards.

LOADING SPACE

An off-street space or berth for the loading or unloading of commercial vehicles. Such spaces shall comply with Article 13, Parking Regulations.

LOT

A parcel of land that is or may be occupied by a building and/or accessory structure or use, including open spaces and setbacks as is required within the district in which the lot is located.

LOT AREA

The total horizontal area within the lot lines of a parcel.

Folcroft Borough Code

LOT, CORNER

A lot bounded by intersecting streets on at least two (2) sides. Both yards adjacent to streets shall be considered front yards.

LOT COVERAGE

The percentage of a lot that is covered by all combined structures, paving or any impervious surfaces. Also see definition of Impervious Surface.

LOT DEPTH

The distance along a straight line measured from the midpoint of the front lot line to the midpoint of the rear lot line.

LOT LINE

A line of public record bounding a lot that divides one lot from another lot or from a public or private street or any other public space.

LOT LINE, FRONT

The line separating the lot from the street right-of-way.

LOT LINE, REAR

Any lot line, except the front lot line, which is parallel to, or within 45 degrees of being parallel to the front lot line, and does not intersect any street line, except in the case of corner lots.

LOT LINE, SIDE

Any lot line that is not a front or rear lot line.

LOT, MINIMUM AREA OF

The smallest allowable lot area as established by this Ordinance on which a use or structure may be located in a particular district.

LOT WIDTH

The horizontal distance between the side lot lines measured at right angles to the lot depth at the building setback line.

MIXED-USE

In districts where permitted, the placement of residential or office use above or adjacent commercial use that is generally required to occupy the ground floor.

MIXED-USE DEVELOPMENT

A single building containing more than one type of land use or a single development of more than one building and use, where different types of land uses are in close proximity, planned as a unified complementary whole, and functionally integrated by shared vehicular and pedestrian access, parking areas, landscaping and other features.

MULTI-TENANT BUILDING

A building designed or converted to accommodate three (3) or more commercial tenants. Each tenant shall operate a use that is permitted in the district where the building is located.

MUNICIPAL FACILITIES, HEAVY IMPACT

Municipal facilities that require storage, repair, parking of trucks, cars, heavy equipment, and materials for municipal purposes.

MUNICIPALITIES PLANNING CODE (MPC)

Pennsylvania Act 247 of 1968 (P.L. 805) as amended, also cited as 53 P.S. 10101 et seq., or any subsequent act of the Commonwealth of Pennsylvania that replaces, supplements, or repeals any or all of the provisions of Act 247. This law controls planning, zoning, and land development in Pennsylvania.

NEW CONSTRUCTION

A structure for which construction was started after the effective date of this Ordinance and includes any subsequent improvements to such structures.

NO-IMPACT HOME-BASED BUSINESS

A business or commercial activity that is clearly secondary to the residential use and in which no persons other than members of the resident family are engaged. The use shall not provide for on-site parking in addition to that required for the residential use. No equipment is used other than that normally used for household or general office use.

NONCONFORMING BUILDING OR STRUCTURE

A building or structure that does not comply with the provisions of this Ordinance, as amended, where such building or structure lawfully existed prior to the effective date of this Ordinance or of amendments thereafter. See Article 18.

NONCONFORMING LOT

Any lawful lot that does not conform to one or more of the applicable provisions of the district in which it is located either on the effective date of this Ordinance or of amendments thereafter.

NONCONFORMING USE

A use, whether of land or a structure, which does not comply with the applicable provisions of this Ordinance, where such use was lawfully in existence prior to the effective date of this Ordinance or amendments thereafter.

OFFICIAL MAP

A map adopted by ordinance by the Borough Council pursuant to Article IV of the MPC.

PARKING SPACE

A reasonably level space, having a surface slope not exceeding six (6) percent. Such space shall have an area as listed in Article 13, Parking Regulations that shall be exclusive of passageways, driveways, or other means of circulation or access.

PEDESTRIAN-ORIENTED CONVENIENCE RETAIL

A small retail store or shop having a floor area not more than 500 square feet and intended to serve users of the various institutional uses in the Municipal Center district and passing pedestrians.

PEDESTRIAN-ORIENTED USE

Retail/commercial uses that promote and encourage walking, window-shopping, and general pedestrian activity. Examples of these uses are restaurants, retail stores, food stores, service establishments, and similar businesses. These pedestrian-oriented establishments should be located in centralized areas and rely mainly on customers from nearby

neighborhoods who could walk to these establishments. Attractive paving, sidewalks, adequate lighting, plazas, benches, and additional shade trees are an integral part of pedestrian-oriented commercial development.

In Folcroft, the Retail Service district is the principal district that provides for and encourages pedestrian-oriented uses. The Municipal Center district contains provisions that encourage walking and overall pedestrian activity to a certain extent.

PERMIT

Written municipal permission issued by the appropriate local official empowering the holder thereof to do some act not forbidden by law, but not permitted without such authorization.

PERSONAL SERVICE SHOP OR ESTABLISHMENT

A business engaged in providing services involving the care or appearance of a person, his or her clothing, or similar personal needs. Included in this definition are barber, beautician, shoe repair, laundry or cleaner, or similar establishment, but not including a tattoo parlor, massage parlor, body-piercing establishment, or health club/spa.

PHYSICAL HAZARD

A chemical that is a combustible liquid, compressed gas, cryogenic, explosive, flammable gas, flammable liquid, flammable solid, organic peroxide, oxidizer, or unstable or water-reactive material.

PLANNING COMMISSION

The Planning Commission of the Borough of Folcroft.

PLANTED VISUAL SCREEN

A strip of trees, hedges or other plantings adjacent to the boundary of a property which, at time of planting, shall be not less than six (6) feet high and of sufficient density to constitute an effective visual screen and thereby give visual protection to abutting properties. Such screen shall consist primarily of dense evergreens that shall be planted not farther than seven (7) feet from one another and shall be permanently maintained. Deciduous trees may be added to create interest and variety.

Folcroft Borough Code

PLAZA

An open space that may be improved and landscaped usually surrounded by streets, buildings, and/or one or more walls.

PRINCIPAL BUILDING OR USE

A building or use which is the primary building or use on a lot as distinguished from a building or buildings relating to an accessory, incidental, or subordinate use.

PRIVACY FENCE

A fence, including any gates, constructed of solid material through which no visual images may be seen.

PRIVATE COMMERCIAL SCHOOL

A building or group of buildings that does not secure the majority of its funding from any governmental agency. Included in this term are trade schools such as beauty salons, truck driving, and others of a similar nature.

PROFESSIONAL OFFICE

The office of a member of a recognized profession maintained for the conduct of that profession, such as a doctor, dentist, lawyer, and other similar professions.

PUBLIC HEARING

In accordance with the MPC, a formal meeting held pursuant to public notice by the Borough Council or planning agency, intended to inform and obtain public comment, prior to taking action in accordance with this Act.

PUBLIC IMPROVEMENTS

All roads, streets, walkways, sidewalks, gutters, curbs, sewers, waterlines, stormwater management facilities, landscaping, street lighting, traffic control devices, and other facilities to be dedicated to or maintained by the Borough of Folcroft.

RECREATION AREA

A place designed and equipped for the conduct of sports, leisure time activities, and other customary and usual recreational activities.

RELIGIOUS ESTABLISHMENT

A building or use used as a place of religious worship and teaching, which may include schools, day care centers, auditoriums, residences for persons serving the particular facility, and recreational facilities.

RESTAURANT, STANDARD OR SIT-DOWN

Any premises used for the sale, dispensing and/or serving of food, refreshments, or beverages where the customer is normally involved with an individual menu and is served by a restaurant employee at the table, booth, or counter at which said items are consumed.

RIGHT-OF-WAY (ROW)

Land acquired by reservation, dedication, prescription, condemnation, or other legal manner and occupied, or intended to be occupied, by a street, crosswalk, electric transmission line, oil or gas pipeline, water line, watercourse, or similar uses.

RIGHT- OF -WAY LINE

The line that forms the boundary of a right-of-way.

ROOF LINE

The line the marks the lowest point of the roof.

ROOF RIDGE LINE

The line that marks the highest point of the roof. This term is applicable to most roofs other than flat roofs.

SATELLITE ANTENNA

An antenna together with all attachments and parts, the purpose of which is to receive communication from orbiting satellites. Such antennas shall comply with Article 15, General Regulations. See also cell site.

SENIOR DAY CARE CENTER

A facility which provides out-of-home care to four (4) or more elderly or disabled adults for not more than 16 consecutive hours on any given day. Such facilities may also offer recreation and educational programs.

Folcroft Borough Code

SETBACK

The distance between the street right-of-way line or a lot line and any building on a lot or tract.

SETBACK, REQUIRED

The minimum distance from the street right-of-way line or any other lot line that establishes the area, commonly known as the "building envelope," within which the principal structure must be erected or placed.

SHOPPING CENTER

A group of predominately retail establishments planned, constructed and managed as a total entity, including both attached buildings and freestanding buildings with customer and employee parking provided on site.

SIGN

Any object, device, display, or illustration which is used to advertise, identify, display, direct, or attract attention to an object, person, institution, organization, business, product, service, event, or location by any means, including words, letters, numbers, or symbols. Signs in the Borough shall be in accordance with Article 14 of this Ordinance.

SIGN, ADVERTISING CLOTH

A sign that has its letters or design applied to cloth, canvas, or other flexible material that is durable and weather resistant.

SIGN AREA

The entire face of a sign including the advertising surface and framing, trim, or molding, but not including the supporting structure.

SIGN, AWNING OR CANOPY

A sign that is mounted or painted on or attached to an awning, canopy or other fabric, plastic, or structural protective cover over a door, entrance, window, or outdoor service area.

SIGN, CHANGEABLE COPY

A sign or portion thereof with characters, letters, or illustrations that can be changed or rearranged without altering the face or the surface of the sign. A sign on which the message changes more than eight (8) times per

day shall be considered an animated sign and not a changeable copy sign for purposes of this Ordinance. A sign on which the only copy that changes is an electronic or mechanical indication of time or temperature shall be considered a “time and temperature sign,” and not a changeable copy sign for purposes of this Ordinance.

SIGN, CURB OR SIDEWALK

A movable sign that is not secured or attached permanently to the ground.

SIGN, DIRECTIONAL

A sign limited to directional messages principally for pedestrians or vehicular traffic, such as “entry,” “exit,” “one way,” “loading,” “service area,” “fire lanes,” “parking,” or a similar sign incidental to the primary use and not itself advertising or naming that use except as required by law.

SIGN FACE

The area or display surface used for the message.

SIGN, FREESTANDING

A detached sign which shall include any sign placed upon or in the ground, supported by a post, stake, etc. and not attached to any building.

SIGN, GROUND

A freestanding sign other than a sign supported by a post or pylon placed upon or supported by the ground independent of any other structure.

SIGN, IDENTIFICATION

A sign giving the nature, logo, trademark, or other identifying symbol, address, or any combination of the name, symbol, and address of a building, business, development, or establishment on the premises where it is located.

SIGN, ILLUMINATED

A sign lighted by or exposed to artificial lighting either by lights on or in the sign or directed towards the sign.

Folcroft Borough Code

SIGN, INCIDENTAL

A sign, generally informational, that has a purpose secondary to the use of the property on which it is located, such as "no parking," "entrance," "loading only," "telephone," and other similar directives. No sign with a commercial message legible from a position off the lot on which a sign is located shall be considered incidental.

SIGN, MENU

A sign that depicts the menu of food and/or drink for sale at an eating or drinking establishment.

SIGN, MULTI-FACED

A sign with two or more display areas or sides on which messages can be displayed.

SIGN, NAMEPLATE

A sign indicating only the name and/or profession and address of the person(s) residing or legally occupying the premises.

SIGN, NEON

A sign that is internally lighted by lamps, bulbs, tubes, etc. that are filled with neon gas. Neon signs are prohibited throughout the Borough.

SIGN, OFFICIAL/TRAFFIC

Any sign installed by a municipal or governmental agency and intended to direct or control traffic, identify streets, parks, and historical events; or to provide other information deemed necessary by that official agency.

SIGN, PROJECTING

A sign that is wholly or partly dependent upon a building for support and which projects more than twelve (12) inches from such building. After the effective date of this Ordinance, projecting signs shall not be erected or placed in the Borough.

SIGN, SALES OR PRICE CHANGE

A type of temporary sign that has a high turnover, such as those advertising "sales" and frequent price changes. These signs are most commonly found on windows/doors of supermarkets, grocery stores and

beverage distributors. In most cases, these signs are constructed of paper, cardboard, or other lightweight materials.

SIGN, SANDWICH BOARD (A-FRAME)

A movable sign consisting of two faces, possibly hinged at the top.

SIGN STRUCTURE

The supports, uprights, braces, and framework of the sign.

SIGN, TEMPORARY

A sign that is used in connection with an event, situation, or circumstance that is designed or intended to take place or be completed within 30 days after the permit for the sign was issued or is intended to remain on the location where it is placed or erected for not more than 30 days.

SIGN, TIME AND TEMPERATURE

A sign that electronically displays the time and temperature.

SIGN, WALL

A sign posted on, suspended from, or otherwise affixed to a wall or vertical surface of a building that does not project more than twelve (12) inches from the wall or vertical surface to which it is attached. Signs shall not be painted on any surface.

SIGN, WINDOW

A sign attached or affixed to a window or door.

STREET

A public or private way used or intended to be used as a means of vehicular and pedestrian travel and access to abutting properties and space for public utilities that is maintained in compliance with all Borough requirements for public or private streets.

STREET, EXTERIOR

A public way serving or abutting the exterior areas of a site.

STREET, INTERIOR

A public or private way serving the internally developed areas of a site.

STREET LINE

The line dividing the street and the abutting property. The street line shall be the same as the right-of way line.

STRUCTURE

Anything constructed or erected with a fixed location on the ground or attached to something having a fixed location on the ground.

SUBDIVISION AND LAND DEVELOPMENT ORDINANCE (SALDO)

The most recently adopted document that addresses subdivision and land development either within a specific municipality or for the County as a whole.

SUPERMARKET

A large retail establishment that primarily sells food and other convenience and household goods. A supermarket shall have not less than 20,000 square feet of floor area and may contain branch banking facilities, video rentals, and pharmacy and eating areas.

SWIMMING POOL (PRIVATE)

Any body of water, tank, or receptacle of water having a depth at any point of greater than two (2) feet used or intended to be used for swimming or bathing solely by the owner, his family, and guests of the household and that is constructed, installed, established, or maintained outside any building in or above the ground upon any premises as an accessory use to the residence. Such swimming pools shall comply with Article 15, General Regulations. Also see Swimming pool (wading).

SWIMMING POOL, (WADING)

Small and sometimes portable pools generally intended for and used by children that do not comply with the above definition for private swimming pools and the requirements in Article 15, General Regulations.

SPECIAL EXCEPTION

An authorized use that may be granted only by the Zoning Hearing Board in accordance with express standards and criteria in accordance with Article 21 of this Ordinance.

TOWER

Any pole, telescoping mast, monopole, tower, tripod, or any other structure that is erected.

TOWNHOUSE BUILDING

A building containing single-family attached dwelling units (townhouse units) in which each townhouse unit is attached only by a party wall or walls to one (1) or two (2) other townhouse units. Townhouse buildings erected after the effective date of this Ordinance shall contain not more than six (6) attached units.

TRACT

An area, lot, parcel, site, or property which is the subject of a subdivision and/or land development.

TRACT AREA

The total acreage of a subdivision or land development. Tract area shall be measured to the ultimate right-of-way line of public streets.

TRANSIT-ORIENTED DEVELOPMENT (TOD)

A development approach locating higher density residential and mixed uses at strategic points along the regional transit system. The design and location of a TOD and the mix of uses emphasize a pedestrian-friendly environment and reinforce the use of public transportation.

UNIFIED DEVELOPMENT

A tract of land developed, operated, and maintained as a single entity and containing two or more structures to accommodate retail, service, commercial, office, industrial, and residential uses. The development shall have common accessways, parking areas, and landscaping, and shall be developed following a common architectural scheme.

Folcroft Borough Code

USE

The specific purpose, for which land or a building is designed, arranged, or intended, or for which it may be occupied or maintained. The term authorized use or its equivalent shall not be deemed to include any nonconforming use.

USE, AUTHORIZED

Any use allowed by this Ordinance as a use by right, accessory use, conditional use, or use by special exception.

USE, PRINCIPAL

The specific primary purpose for which a lot or site is used.

VARIANCE

Relief granted pursuant to the Articles VI and IX of the Municipalities Planning Code and Article 21, Zoning Hearing Board, of this Ordinance.

WALKWAY

A hardscaped pedestrian path of a width required in this Ordinance, that does not follow a course parallel to the public street, as in the case of a sidewalk.

YARD

An unobstructed open space on the same lot with a principal building that extends from a street line or lot line inward to and around the principal building.

YARD, FRONT

A yard extending the full width of the lot, the depth of which extends from the front lot line to the nearest point of the principal building. Yards adjacent to both streets on corner lots shall be considered front yards.

YARD, INTERIOR

The area between a parking lot or an interior driveway in a development and principal building(s).

YARD, PERIMETER

The area between the public street abutting a development and a principal building(s).

YARD, REAR

A yard extending the full width of the lot, the depth of which extends from the rear lot line to the nearest point of the principal building.

YARD, REQUIRED

The open space between a lot line and the buildable area or “building envelope,” within which the principal structure must be erected or placed.

YARD, SIDE

A yard extending between the inside lines of the front and rear yards, and extending in width from the side lot line to the nearest point of the principal building.

ZONING DISTRICT

An area in the Borough of Folcroft in which regulations under this Ordinance uniformly apply including overlay districts.

ZONING OFFICER

The person appointed by the Borough Council in accordance with the Municipalities Planning Code whose duty it shall be to administer this Zoning Ordinance and such other ordinances as may be assigned by the Council.

ZONING ORDINANCE

An ordinance that divides the Borough or other units of local government into areas or zones that specify allowable uses for real property along with size and locational restrictions for buildings within these areas.

ZONING PERMIT

Written permission issued by the Zoning Officer or other appropriate municipal official empowering the holder thereof to erect or alter a building or structure, including signs and fences, change the use of a building or land, and change or extend a nonconforming use. Also known as a “Use Registration Permit” in the Borough of Folcroft.

ARTICLE 9

LIB - LIGHT INDUSTRIAL / BUSINESS PARK DISTRICT

900 District Purposes

The purpose of the LIB – Light Industrial/Business Park district is to allow for the development of non-nuisance business, laboratory, and light industry geared towards modern, technological uses. District regulations are intended to encourage attractive, large lot, moderate coverage establishments that do not constitute a nuisance or danger to nearby residents.

901 Uses Permitted by Right

Land, buildings, or premises shall be used by right for only one or more of the following uses:

1. Office building.
2. Light industrial use, as defined in Article 2, that does not constitute a nuisance to the neighborhood and nearby residents.
3. Laboratory, as defined in Article 2.
4. Electronic data processing center, telecommunications hub, information technology firm, and similar technological facility.
5. Warehouse, distribution, mail order facility, wholesale showroom, and similar facility.
6. Financial establishment such as a bank, lending institution, mortgage broker, and similar facility.
7. Business/trade school and/or other indoor and outdoor vocational training within limits set forth in Article 19, Performance Standards.
8. Motion picture or television filming, production, or broadcasting facility.
9. AM/FM radio station; production and broadcasting.

Folcroft Borough Code

10. Independent parking garage, excluding long-term parking over 24 continuous hours, subject to area and bulk regulations within this Article, Article 13 Parking Regulations, and Section 1612.

~~11. Shared parking area, subject to Section 1305.~~

12. Cellular Communications Facilities, subject to Section 1523.
13. Health Club or spa, subject to Section 1616.

902 **Conditional Uses**

The following uses shall be permitted by conditional use only, subject to the applicable requirements of Article 16, Procedures and Standards for Conditional Uses.

1. Child day care center, subject to Section 1508.
2. Uses of the same general character as those permitted in Sections 901 and 902 provided that no resource recovery, waste treatment, landfill, or other use having a negative or detrimental impact on the environment, neighboring residents, or surrounding neighborhood shall be permitted. Such use shall be permitted by the Borough Council upon the recommendation of the Planning Commission, shall be consistent with the purposes of the district, and comply with the Performance Standards in Article 19. In determining if a proposed use is of the same general character of the permitted uses, reviewing parties shall evaluate its impacts against the Compatibility Standards in Article 15, General Regulations.

903 **Accessory Uses and Structures**

The following uses shall be permitted as accessory uses, subject to all applicable requirements of Article 15, General Regulations and other Articles as noted below.

1. Restaurant, cafeteria, snack bar, or similar use for employees or customers of any use permitted in this district.
2. Off-street parking and loading, subject to Article 13, Parking Regulations.
3. Signage, subject to Article 14, Signs.
4. Storage building, subject to Section 1504.

5. Recreational or assembly area for employees and customers.
6. Living quarters for a watchman or caretaker.
7. Commercial drop-off and pick-up boxes, stations for mail and newspaper vending machines, provided that such boxes shall not be located within a right-of-way of a public street.
8. Small collection facility for recyclables.
9. Cellular phone antennae not amounting to an independent structure, subject to Section 1523.
10. Any accessory use on the same lot and customarily incidental to the principal use on the property and not detrimental to the area, as determined by the Zoning Hearing Board.

904

Area and Bulk Regulations

Unless stated otherwise, the following shall be minimum requirements:

- | | | | |
|----|-------------------------------------|----|--|
| 1. | Tract | -- | Two (2) acres. |
| 2. | Yards (front, side, and rear yards) | -- | 30 feet on all sides, increased to 50 feet when abutting a residential district. |
| 3. | Interior yards | -- | 15 feet between a building and an interior street. |
| 4. | Distance from parking area | -- | Ten (10) feet between a parking area and the principal building. |
| 5. | Distance between buildings | -- | 40 feet. |
| 6. | Impervious surface | -- | 70 percent, maximum. |
| 7. | Height | -- | 40 feet, maximum. |

905

Special Development Regulations

1. In any area where a new building or an addition to an existing building is proposed, a buffer, as defined in Article 2, Definitions, shall be provided at the boundary line with all residential districts.

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The buffer shall be not less than 40 feet wide at the proposed building or addition as measured from the district boundary line or from the nearest street line where the street serves as the district boundary line. Buffers may be part of side or rear yards. Buffer area requirements shall not be applicable to existing structures or to any change in use relating to an existing structure.

2. Screening requirements shall not be applicable to existing structures or uses, or to any changes in use relating to an existing structure. A planted visual screen, as defined in Article 2, or a privacy fence, shall be provided and continually maintained where a principal new building or addition is proposed. Planted visual screens shall comply with the requirements of Section 1516, and shall be provided along the property lines with any residential district.
3. Landscaping requirements shall not be applicable to existing structures or uses, or to any changes in use relating to an existing structure. Landscaping, as per Section 1517, shall apply only to areas where a principal new building or addition to a principal existing building is proposed.
4. Outdoor storage shall be permitted in this district provided a planted visual screen subject to Section 1516 is present.
5. All public utility lines and similar facilities servicing the proposed development shall be installed underground and electric transformers shall be either placed underground or be enclosed by a planted visual screen.
6. All exterior lighting shall be arranged so that no direct glare from it shall extend beyond the property line of the tract.
7. Free-standing light poles shall not exceed 25 feet in height.
8. All rooftop equipment or other projections shall be completely screened from public streets and adjacent lots.
9. No products or items or portions thereof shall be processed, assembled or packaged which shall exceed 30 cubic feet.

ARTICLE 13**PARKING REGULATIONS****1300 Purposes**

The primary purposes of this Article are to adequately provide for the parking needs of all uses in the Borough and to reduce traffic congestion on public streets by allowing provisions for off-street parking facilities in order to support faster emergency access to all districts. The secondary purposes include; providing for the special parking needs of handicapped drivers, allowing flexibility in meeting parking needs by utilizing methods such as off-site and shared parking arrangements, and creating requirements for all loading, landscaping, and parking design.

1301 Applicability**1. Basic Requirements**

Off-street parking shall be provided in accordance with the requirements in Section 1303 below. All such off-street parking areas shall be provided on the same parcel of land as the use or building they serve, except as modified by Section 1305 (Off-site and Shared Parking). The minimum off-street parking requirements in Section 1303 shall apply to all districts.

2. Existing Structures and Uses

No building or use lawfully in existence prior to the effective date of this Ordinance shall be subject to the requirements of Section 1303, so long as the kind or extent of use is not changed so as to require additional parking.

3. Provision and Retention of Facilities

All required parking facilities should be provided and maintained so long as the use exists which the facilities were designed to serve. Off-street parking facilities shall not be reduced in total extent except when such reduction is in conformity with this Article.

4. Change or Extension of Use

Within all districts, whenever a structure is altered or a use is changed or extended, then the total additional parking required for

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the alteration, change, or extension shall be provided in accordance with Section 1303 as long as the use remains.

1302

General Regulations for Off-Street Parking

1. Where a use is not specifically listed in this Ordinance, the Zoning Hearing Board (ZHB) shall apply the standards of the most similar use listed to determine the number of parking spaces required.
2. If the computation of the parking ratios listed in Section 1303 results in a fraction, an additional parking space shall be required.
3. All parking areas of ten (10) spaces or more and subject to vehicular traffic, loading areas, and driveways shall be graded and surfaced with bituminous concrete or equivalent surfacing and graded to properly dispose of all surface water accumulation within the parking area in conformance with municipal standards as to not allow drainage onto any adjoining property.
4. In off-street parking areas with five (5) or more spaces, each space shall be clearly line-striped and maintained.
5. Freestanding establishments located within shopping centers shall have adequate parking as required in Section 1303 and will not rely on common parking to meet the aforementioned requirements, except where the conditions of Section 1305 are met.
6. All parking areas with five (5) or more spaces shall be adequately lighted so as to assist in the safe maneuvering of motor vehicles and to provide security for users of the lot. All lighting shall be arranged to avoid glare on adjacent properties.
7. Parking or storage of disabled, partially dismantled, or junked cars, trucks, boats, or other vehicles shall be permitted on a lot for a continuous period of not more than five (5) days.
8. Front-yard parking, as defined in Article 2, is prohibited. No unpaved, front yard parking shall be permitted.
9. Except for light maintenance, heavy repair work shall not be permitted in parking areas.
10. Expansion of the driveway or parking pad into an area otherwise utilized for the front-yard is considered front-yard parking and is not permitted.

- 11. All off-street parking lots shall comply with provisions of the Delaware County Land Development and Subdivision Ordinance of 2006 as now exists or may be adopted, for any standards not explicitly stated within the Borough Zoning Ordinance.
- 12. Any new or existing structure or use located in the GB and RS districts may use adjacent on-street and/or public parking spaces within 200 feet if sufficient off-street parking is not available in the amounts necessary to meet the requirements of Section 1303.
- 13. In addition to meeting parking requirements in Section 1303 districts may supplement these standards with bicycle racks or lockers for persons, residents, and customers who choose to travel by bicycle.
- 14. Where off-street parking lots abut walkways, walls, fences, buildings, or public right of ways, bumper guards, curbs, or wheel stops shall be installed to ensure vehicles will not strike or obstruct them.
- 15. No commercial motor vehicle, as defined in Article 2, may park overnight on an on-street parking space.
- 16. Common driveways shall not be permitted.

1303 Required Parking Ratios

1. Residential Uses

<u>Use</u>		<u>Off-Street Parking Requirements</u>
a.	Single-family detached or single-family semi-detached dwelling	Two (2) spaces for every dwelling unit.
b.	Townhouse	Two (2) spaces for every dwelling unit.
c.	Multi-family dwelling	Two (2) spaces per dwelling unit, plus one (1) space for every four (4) dwelling units for guests in developments/buildings of twelve (12) or more units.

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- d. Conversion Two (2) spaces per unit.
 - e. Community residence facility One (1) space for every two (2) bedrooms, plus one (1) for each employee.
2. Public or Private Recreational Uses
- a. Private clubs One (1) space for every 100 square feet of floor area
 - b. Bowling alley Four (4) spaces for each lane.
 - c. Outdoor commercial recreation One (1) space for every 2,000 square feet of area devoted to such use.
 - d. Indoor recreation One (1) space for every 100 square feet of gross floor area.
3. Governmental, Institutional, and Educational Uses
- a. Auditoriums, churches, and other places of public assembly One space (1) for every five (5) seats, plus one (1) space for every 150 square feet of meeting room area.
 - b. Community center, municipal building, library or similar use One (1) space for every 300 square feet of gross floor area.
 - c. Child day care center One (1) space for every 500 square feet of gross floor area, plus one (1) space for each adult attendant or teacher. This shall be in addition to the parking requirements of the primary use, such as a school or church, if applicable.

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|---|--|--|
| d. | Nursery,
primary and
secondary schools | One (1) space for each faculty member or other full-time employee, plus two (2) spaces for each classroom and one (1) space for every twelve (12) students aged sixteen (16) years or older. |
| 4. Retail, Commercial and Other Business Uses | | |
| a. | Retail store or shop | One (1) space for every 200 square feet of gross floor area. |
| b. | Furniture or appliance store | One (1) space for every 400 square feet of gross floor area. |
| c. | Convenience store | One (1) space for every 125 square feet of gross floor area. |
| d. | Supermarket | One (1) space for every 125 square feet of gross floor area. |
| e. | Personal service businesses such as barber shops, tailors, shoe repair, etc. | One (1) space for every 150 square feet of gross floor area. |
| f. | Shopping center | One (1) space for every 250 square feet of gross leasable floor area. |
| g. | Professional and other office area | One (1) space for every 300 square feet of gross floor area. |
| h. | Banks, credit unions, and savings and loan | One (1) space for every 200 square feet of gross floor area. |
| i. | Medical, dental, veterinary offices or clinics | One (1) space for every 100 square feet of waiting room space, plus two (2) spaces for each practitioner. |
| j. | Restaurant | |
| | (1) Sit-down | One (1) space for every 150 square |

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		feet of gross floor area, plus one (1) space for every two (2) employees on the shift of greatest employment.
	(2) Restaurant with drive through	One (1) space for every 75 square feet of gross floor area, plus one (1) space for every two (2) employees on the shift of greatest employment
k.	Bar, tavern	One (1) space for every 150 square feet of gross floor area.
l.	Movie theater or amusement venue	One (1) space for every three (3) seats plus one (1) space for every employee on the greatest shift of employment.
m.	Funeral home	One (1) space for every 75 square feet of floor area in viewing rooms or parlors, plus one (1) space for each official funeral car and one (1) space for every two (2) employees exclusive of the resident family members.
n.	Hotel, motel, or inn	One (1) space for every guest room, plus one (1) space for every two (2) full-time employees, plus the required parking for accessory uses such as restaurants, bars.
o.	Car wash	
	(1) Standard	Ten (10) spaces per bay for stacking, plus four (4) spaces for standing between the exit of the facility and the street, plus one space for each employee on the greatest shift.
	(2) Self-service	Four (4) spaces per bay for stacking, plus one (1) space for standing between the exit of the facility and the street.
p.	Laundromat, self-service	One (1) space for every two (2) washing machines.
q.	Automobile service and	Two (2) spaces, either within or outside the structure, for every 200

repair	square feet of floor or ground area devoted to repair or service facilities and, in addition, such space as is necessary for vehicles purchasing gasoline or being stored. In no case shall the spaces for permitted motor vehicle storage in conjunction with a service station be fewer than five (5).
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|----|---|--|
| r. | Repair or tradesman shop, e.g. carpenter, plumber, etc. | One (1) space for every 400 square feet of gross floor area. |
| s. | Temporary uses such as sales of Christmas trees, flowers, produce and other goods | One (1) space for every 200 square feet of sales area. |
| t. | Health club and spa | One (1) space for each staff member, plus one (1) for every 500 square feet. |

5. Industrial and Other Related Uses

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|----|---|---|
| a. | Research and development, light manufacturing and assembly | One (1) space for every 750 square feet of gross floor area plus one (1) space for every employee on the shift of greatest employment. |
| b. | Storage, manufacturing, warehousing, distribution, wholesale, heavy industry, air freight | One (1) space for every 1000 square feet of gross floor area plus one (1) space for every employee on the shift of greatest employment. |

1304

Design Regulations

1. The size of a standard parking space shall be nine (9) feet wide by eighteen (18) feet long, an area of 162 square feet.
2. Parking spaces for the handicapped shall be twelve (12) feet wide by eighteen (18) feet long, an area of 216 square feet, or meet the most

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recently adopted ADA standards. Parking spaces for the handicapped must be located as close as possible to public entrances and ramps to buildings. Each space must be clearly marked with proper signage.

3. Handicapped spaces shall be provided in the amounts required below:

<u>Total Parking Spaces</u>	<u>Number of Required Handicapped Spaces</u>
10- 25	1
26- 50	2
51- 75	3
76-100	4

4. All parking areas for five (5) or more vehicles shall be designed so that vehicles need not back directly into a public street but can enter and leave the parking area in a forward motion.
5. All parking shall be accessible to and from a street, driveway, and/or alleyway.
6. Every parking lot or area with ten (10) or more off-street spaces shall be separated from the street or highway by a raised curb, planting strip, wall, or other suitable barrier against unchanneled motor vehicle entrance or exit, except for necessary accessways.
7. Drive-through establishments such as fast order and pick-up, automatic bank teller and similar uses shall provide no fewer than five (5) waiting spaces for each drive-through lane. This is in addition to the space for the car being serviced.
8. Where possible, surface parking shall preferably be located at the rear of the building or if not feasible, at the side.

1305

Off-Site and Shared Parking

1. Nothing in this Article shall be construed to prevent the collective off-site parking facilities for two (2) or more nonresidential buildings or uses. However, the total of such off-site, parking spaces shall be not less than the sum of requirements for the various uses compiled separately and provided that such off-site parking is not farther than 500 feet from the use in question. The parties entering the partnership must enter a formal, written agreement to be approved by the Borough Solicitor.

2. Two (2) or more nonresidential uses may provide for required parking in a shared parking area, provided that such area is on or adjacent to such uses. The number of spaces required in such a shared parking area may be reduced below the sum of the total requirements if it can be demonstrated to the Zoning Officer that the hours or days of peak parking demand for the uses are so different that a lower overall total of parking spaces will adequately provide for the uses to be served. In such case sufficient parking shall be provided to meet the minimum needs of the use that requires the greater parking area.

1306

Design of Off-Street Loading Facilities

1. The minimum size loading space shall be fifty (50) feet long by twelve (12) feet wide, with an overhead clearance of fourteen (14) feet, exclusive of drives and maneuvering space, and located entirely on the lot being served. Any overhead canopy should extend a minimum of four (4) feet beyond a loading dock.
2. All loading spaces shall have adequate access from a street or way that does not block or interfere with required parking as specified in Section 1303. This required space must be provided in addition to the established requirements for patron and employee parking.
3. Every building or use of land consisting of over 5,000 square feet of gross floor area designed or used for commercial or industrial uses shall be provided with a loading space as follows:

<u>Total Gross Floor Area</u>	<u>Number of Loading Spaces Required</u>
Up to 15,000 square feet	1 space
15,000 to 50,000 square feet	2 spaces
50,000 to 100,000 square feet	3 spaces
each additional 100,000 square feet	1 additional space

4. In no case shall public rights-of-way be used for loading or unloading of materials. Furthermore, no loading dock or space shall be located or arranged in such a way that it is necessary to back any vehicle into or off any public right-of-way or require the use of any public right-of-way maneuvering space.
5. All off-street loading berths shall be provided on either the side or rear of the lot. In no case shall off-street loading berths be provided in the front of the lot.

6. All off-street loading shall be designed so as to minimize the nuisance, hazard, or impediment to pedestrian travel and traffic flow on public streets.

1307

Screening and Landscaping Requirements

1. Screening between any parking area and the street line shall be effective at the time of occupancy, subject to the following provisions:
 - a. All off-street parking areas that provide more than five (5) parking spaces shall be screened from any abutting property in a residential or other more restrictive zoning district.
 - b. Effective screening may be accomplished through the use of the following: plant materials, fencing or walls and/or mounding through the use of an earthen berm forming a continuous visual buffer.
 - c. The area for planting and fencing, walls or earthen berms shall not extend beyond the street line.
 - d. When planted visual screens are employed, the following shall apply:
 - (1) A buffer planting strip shall be provided. It shall be a minimum of five (5) feet in width unless specifically required otherwise in this Ordinance.
 - (2) Planted visual screens, as defined in Article 2, shall be of sufficient height and density to constitute a continuous visual screen six (6) feet in height at the time of planting except as provided below.
 - i. Whenever fencing or walls are employed, the effective height of the continuous visual screen shall be not less than five (5) or more than six (6) feet.
 - ii. Whenever earthen berms are employed, the effective height of the continuous visual screen shall be not less than eight (8) feet.

2. Landscaping within any parking area which provides twenty (20) or more parking spaces shall be subject to the following provisions:
 - a. Off-street parking areas shall be landscaped to reduce wind and air turbulence, heat, noise and the glare of automobile lights; to reduce the level of carbon dioxide; to provide shade; to improve stormwater drainage problems; to replenish the groundwater table; and to provide for a more attractive setting.
 - b. The interior of each parking lot constructed or enlarged after the effective date of this ordinance shall have at least one (1) three (3) inch caliper deciduous shade tree for every fifteen (15) parking spaces if there are no existing shade trees to satisfy this requirement. Shrubs and other plant materials are encouraged to be used to complement the trees but shall not be the sole contribution to the landscaping. These trees shall be in addition to those required as an effective screen. Trees selected for landscaping in parking areas shall be of a species proven to be salt and dust resistant.
 - c. Landscaped areas at least five (5) feet wide shall be provided along all street frontages in parking lots with twenty (20) or more parking spaces.
 - d. Planted landscaped islands between every twenty (20) parking spaces or at the end of each parking row, whichever is less, shall be provided and shall be the length and width of the parking spaces.
 - e. Existing plant material and trees with a caliper of six (6) inches or more shall be preserved wherever possible during construction. Such existing plants may be credited toward the amount of required plantings.

ARTICLE 14**SIGNS****1400 Purposes**

The purposes of this Article are to provide for and regulate the types, dimensions, and other features of signs in Folcroft Borough, to recognize the commercial communication needs of the business community, to protect the public from damage or injury attributable to distractions and obstructions from improperly designed or located signs, to safeguard property values and to assure that signs are consistent and harmonious in relation to the scale, appearance, and character of buildings and areas where they are located.

1401 Scope and Applicability

1. Any sign hereafter erected shall conform to the provisions of this Article and any other ordinance or regulations of the Borough relating thereto. Any sign not specifically authorized by the provisions of this Article shall not be erected in the Borough.
2. It shall be unlawful for any person, firm or corporation to erect, alter, rebuild, enlarge, extend or relocate signs listed in Section 1405 without first obtaining a permit from the Borough, except for those signs listed specifically in Section 1404.
3. Application for such permits shall be made in writing to the Borough in accordance with Section 1409.
4. The Zoning Officer or the Building Code Official is hereby authorized to revoke any permit issued by the Borough upon failure of the holder thereof to comply with any provision of this Article.

1402 Determination of Sign Size

1. The size of any sign shall be determined in accordance with the provisions of this Article and the following:
 - a. When a sign consists of letters, numbers and/or logos and not a lettered board and such sign is erected on or attached to a building wall, pole, or other similar surface or support, the size of such sign shall be measured by the geometric shape

formed by the extreme outside edge of the largest letters, numbers or logos contained in the sign.

- b. When a sign consists of a lettered board and such sign is erected on or attached to a building wall, pole, or other similar surface or support, the size of such sign shall be determined by calculating the area of the lettered board.

2. Area of Multi-Faced Signs

The sign area for a sign with more than one face shall be computed by adding together the area of all sign faces visible from any one point. When two identical sign faces part of the same sign structure are placed back to back so that both faces cannot be viewed from any point at the same time, and when such sign faces are not more than 42 inches apart, the sign area shall be computed by the measurement of one of these faces.

1403

Sign Restrictions and Standards

- 1. Prohibited Signs. It is unlawful to erect or maintain the following signs:
 - a. Flashing, blinking, spinning, animated, inflatable, aerial, or lighted moving signs, including automatic color changing and rotating lamps and other moving objects that call attention to the sign. The use of rotating searchlights for advertising is allowed after obtaining a permit from the Borough.
 - b. Signs that display vulgar, indecent or obscene advertising matter.
 - c. Advertising cloth or banner or signs of any similar character suspended or hung on any property.
 - d. Wall bulletins or any other signs painted directly on the façade of a building or other structure.
 - e. Curb or sidewalk signs or signs painted, attached or suspended from any outdoor bench, chair or similar structure.
 - f. Swinging and hanging signs.

- g. Signs pasted, tied, pulled or otherwise attached to a vehicle, that refer to a business or activity unrelated to the purpose or activity for which the vehicle is used.
- h. Signs placed, inscribed or supported upon the roofline or any structure that extends above the roofline of any building.
- i. Signs that state or imply that the property on which they are placed is used for purposes or activities not permitted by this Ordinance.
- j. Neon signs.

2. Projecting Signs Prohibited.

New projecting signs shall not be erected after the date of enactment of this Ordinance. Projecting signs in existence at the enactment of this Ordinance shall be considered nonconforming signs and shall be allowed to continue subject to Section 1407.

3. Standards and Restrictions

The following standards and restrictions shall apply to all permitted signs:

a. General

- i. No sign shall be located, arranged, or placed in a position where it will cause danger to traffic or will interfere with traffic through glare; block required sight lines for streets, sidewalks or driveways; or cause confusion with a traffic control device by reason of color, location, shape or other characteristics.
- ii. Where not inconsistent with this Article, all signs constructed or erected under the provisions of this Article shall comply with the standards set forth in the Pennsylvania Uniform Construction Code most recently adopted by the Borough.
- iii. Except for official/traffic, directional, and incidental signs, no sign shall be erected within the right-of-way lines of any public street except in the General Business district, nor shall any such sign be closer

than six (6) feet to the right-of-way line of a public street, unless specifically authorized by other ordinances and regulations of the Borough of Folcroft or other governmental bodies or agencies having jurisdiction or regulatory authority in the matter.

- iv. No illuminated sign shall be lighted on days when the business or permitted use is not open for business.
- v. All signs must be constructed of durable materials and shall be solidly and firmly attached and/or anchored to its supports or framework.
- vi. All permanent signs over four (4) square feet in size shall be constructed by a professional sign company.
- vii. Every sign must be kept in good condition and repair. Any sign that becomes dilapidated or abandoned shall be removed by or at the expense of the landowner or lessee of the property on which it is located.
- viii. Where applicable, the requirements of the Pennsylvania Department of Transportation in relation to signs shall be followed.
- ix. Except for official signs, incidental signs, directional signs, way-finding signs, or billboards, all permanent signs shall be located on the property to which the text or message applies.
- x. Freestanding signs, canopy signs and awning signs shall have a clearance of not less than eight (8) feet between the ground and the bottom of the sign.
- xi. Where a business ceases to operate and vacates the premises, the owner/operator must remove all signs and sign structures within one year after ceasing business operations. However, the sign structure may remain if the owner or occupant can demonstrate that a subsequent owner or occupant will utilize a sign or sign structure.

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b. Freestanding Signs

- i. The bottom or lowest edge of any freestanding sign shall be no closer to the ground than eight (8) feet or six (6) feet in residential districts. No more than two (2) feet above the ground level can be devoted to and maintained for plantings. If such plantings are installed, they shall be maintained at the maximum height of two (2) feet and shall be free of weeds, debris and other undesirable material.
- ii. All single-post freestanding signs shall be made of metal, except for those used in residential districts which may be made of pressure treated timbers. All such posts shall be embedded in the ground at least three (3) feet six (6) inches unless otherwise directed by the Zoning Officer.
- iii. Freestanding signs will be permitted in residential areas only when set back a minimum distance of six (6) feet behind the front property line and no portion of such sign shall be less than six (6) feet behind the front property line.
- iv. Freestanding signs in residential districts shall be illuminated only by concealed or indirect lighting.
- v. There shall be a distance of not less than 100 feet between freestanding signs along the same road frontage.

c. Ground Signs

- i. The top edge of a ground sign shall be a maximum of six (6) feet above ground level.
- ii. Ground signs shall be supported and permanently placed by embedding, anchoring or connecting the sign in such a manner as to incorporate it into the landscape or architectural design scheme.
- iii. The setback shall be as required for freestanding signs in Section 1403.3.b.iii above.
- iv. Illumination shall be by concealed or indirect lighting.

d. Window Signs

A maximum of twenty (20) percent of the total window area may be used for permanent signs that are etched, painted or permanently affixed to the window.

e. Temporary Signs

i. The use of any temporary sign, except for signs exempt by Section 1404, shall require a permit that shall be effective for not more than 30 days in accordance with Section 1409.

ii. Temporary signs shall be placed so as not to obstruct vehicular or pedestrian traffic or create a safety hazard.

iii. Such signs shall not obstruct access to or from any door, window, fire escape or ventilating equipment, nor be attached to any standpipe or fire escape.

iv. Temporary signs shall be removed immediately upon expiration of the permit.

v. The size of these signs shall not exceed one third (1/3) square foot of sign area for each linear foot of building width.

vi. Temporary commercial advertising signs shall not be attached to fences.

1404

Signs not Requiring a Permit

The following signs are exempt from the need to secure a permit but are subject to all other applicable provisions of this Article:

1. Public notice, warning or official/traffic sign required by a federal, state or local law, regulation or ordinance.
2. Any sign inside a building not attached to a window or door that is not legible from a distance of more than three (3) feet beyond the lot line of the property on which such sign is located.

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3. Building markers that only include building name, date of construction or historical data on an historical site, provided that there is only one (1) per building with a maximum area of six (6) square feet.
4. Flags of the United States, the Commonwealth of Pennsylvania, foreign nations having diplomatic relations with the United States or any other flag adopted or sanctioned by an elected legislative body of competent jurisdiction, provided that such flag does not exceed 60 square feet in area and shall be flown from a pole not more than 40 feet in height.
5. Decorative flags, not exceeding twelve (12) square feet.
6. Incidental signs containing no commercial message of any kind, provided that such signs do not exceed eight (8) square feet.
7. Temporary window signs advertising the sale or price change of goods provided that such signs do not exceed 50% of total window coverage and are arranged in such a manner as to not obstruct the view of goods and business activity being conducted inside.
8. Signs advertising the sale or rental of the premises or lot upon which they are erected, provided that there is not more than one (1) such sign per street frontage. Such sign shall be neither illuminated nor exceed eight (8) square feet in residential districts and 32 square feet in non-residential districts. All such signs shall be removed on or before the date of settlement.
9. Signs advertising the development of the premises where they are erected. Such signs shall not exceed 16 square feet in residential districts and 40 square feet in nonresidential districts. All such signs shall be removed on or before the date of settlement.
10. Nameplate signs on private residences, provided that they do not exceed 144 square inches.
11. Decorations for a recognized officially designated holiday, provided that they do not create a traffic or fire hazard.
12. Yard sale or garage sale signs, provided that they do not exceed two (2) square feet and are removed within 24 hours after such sales.
13. Signs announcing educational, charitable, civic, religious or similar campaigns or events, provided that such signs are erected for a period not to exceed 30 days or more than four (4) times in any

calendar year for a maximum annual total of 120 days. Such signs shall not exceed eight (8) square feet.

14. Changeable copy signs for churches, schools and other uses which by their nature require changeable copy signs, provided that only one (1) such sign shall be permitted. However, in the case of a corner property, one (1) additional sign is permitted on the side of the property. The size of such signs shall not exceed 16 square feet.
15. Directional signs.
16. Freestanding signs of an official nature identifying a civic event.
17. Signs, letters, posters and advertisements which are tacked, pasted, tied or otherwise affixed to poles, posts, buildings, fences, bus shelters or other structures located on public property or within public street lines. These signs shall be removed within ten (10) days of the events end.
18. A-frame, sandwich board or similar temporary signs.

1405

Signs Requiring a Permit

The following signs, as described under each zoning district or group of districts, are permitted, provided that they meet the conditions in Section 1403 and a sign permit has been obtained in accordance with Section 1409:

1. Signs in **Residential districts**. The following types of signs that require a permit and no others shall be permitted in the R-1, R-2, and R-3 Residence districts:
 - a. Identification signs for apartment buildings or complexes, residential developments, churches/religious uses, and similar permitted uses other than individual dwellings, provided that:
 - i. Such signs shall be freestanding signs, ground signs or wall signs only.
 - ii. Not more than one (1) wall sign and one (1) freestanding or ground sign shall be permitted for each frontage.
 - iii. The size of freestanding, ground and wall signs shall not exceed 16 square feet.

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- b. Signs identifying nonresidential uses permitted as valid nonconforming uses, provided that they meet the same requirements as subsection 1a above.
 - c. Illumination of signs in subsection 1405.1 above shall be by external white light only.
 - d. Signs in residential districts shall be harmonious with other signage as well as consistent with the appearance of housing types and permitted uses in each respective district.
 - e. Signs identifying any home office or no-impact home-based business shall be freestanding, wall, or ground signs only. These signs shall be no larger than two (2) square feet in size. The lowest edge of a freestanding or ground sign shall not be more than six (6) feet above the ground.
2. Signs in the **Municipal Center district**. The following types of signs that require a permit and no others shall be permitted in the MC district, subject to the following regulations:
- a. Wall signs, awning signs, freestanding signs, and ground signs.
 - b. Wall signs that identify the primary use of a principal building shall not exceed one square foot for each foot of building width.
 - c. There shall not be more than one wall sign for each street frontage. However, should the frontage be greater than 100 feet, two (2) signs may be permitted. In this case, a special exception shall be required.
 - d. In cases where multiple tenants or uses are in one building, a wall sign shall be permitted for each use provided the sign area does not exceed ten (10) square feet.
 - e. Awning signs may be substituted for wall signs in accordance with the requirements in subsections 2b and 2c above.
 - f. Freestanding or ground signs identifying the permitted uses in the MC district shall be permitted only along exterior roads.
 - g. Only one (1) freestanding or ground sign shall be allowed along each exterior road that shall not exceed 25 square feet.

- h. Any illuminated sign shall be lit using internal or external white light only.
- i. Signs in the MC district shall reflect and be consistent with the character and appearance of buildings.
- 3. Signs in the **Retail Service** and **General Business** districts. The following signs that require a permit and no others shall be permitted in the RS and GB districts, subject to the following requirements:
 - a. Any sign permitted in a residential district with the requirements in that district, as noted in Section 1405.1.
 - b. Wall signs, awning signs, window signs, freestanding signs, and ground signs.
 - c. There shall not be more than one (1) wall sign for each frontage. However, for buildings that have a front width of 100 feet or more, two (2) wall signs shall be permitted at that frontage. In this case, a special exception shall be required.
 - d. The size of wall signs in the GB district shall not exceed one (1) square foot of sign area for each linear foot of building width.
 - e. The size of wall signs in the RS district shall not exceed three-quarters (3/4) square foot of sign area for each linear foot of building width.
 - f. On corner lots, signs fronting side streets, along the long side of a building, shall not exceed ½ square foot of sign area for each linear foot of building width. However, where the side street is an arterial street, the size of the wall sign shall be same as on the front street.
 - g. Awning or canopy signs may be substituted for wall signs in accordance with the requirements in subsections 3c, 3d, and 3e above.
 - h. The awning or canopy on which a canopy or awning sign is depicted or placed shall not extend more than five (5) feet from the front wall of the building.

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- i. Where there is a business or professional office on the second floor, one (1) additional wall sign, not greater than eight (8) square feet, shall be permitted. Such signs shall be located on the second story.
 - j. Wall or window signs identifying apartment space above the first floor shall be permitted in addition to the principal wall sign permitted. Such additional wall or window signs shall not exceed six (6) square feet.
 - k. Freestanding or ground signs that advertise a business shall not exceed 20 square feet in the GB district and 15 square feet in the RS district.
 - l. Any illuminated sign lit by any means other than neon.
4. Signs in the **Light Industrial/Business Park** and **Light Industrial/Business Park-A** districts. The following signs that require a permit and no others shall be permitted in the LIB and LIB-A districts, subject to the following requirements:
- a. Wall signs, awning signs, freestanding signs, and ground signs.
 - b. Not more than one (1) wall sign shall be permitted for each establishment frontage. However, for businesses that have a front width of 100 feet or more, two (2) wall signs shall be permitted at that frontage. In this case, a special exception shall be required.
 - c. Wall signs identifying individual businesses that occupy an entire principal building shall not exceed one half (1/2) square foot of sign area for each linear foot of frontage of the establishment.
 - d. Wall signs identifying individual establishments that occupy a portion of an entire principal building on a tract shall not exceed one half (1/2) square foot of sign area for each linear foot of the frontage of the business or establishment.
 - e. Wall signs shall not be placed within one (1) foot of the edge of the front wall of the building.

- f. Awning signs may be substituted for wall signs with the same requirements as noted in subsection(s) 4b, 4c, and 4d above.
 - g. One (1) freestanding or ground sign identifying the entire light industrial/business park shall be permitted at each principal exterior road. The size of such freestanding or ground sign shall not exceed 60 square feet. Provided however, if there are two entrances on a principal exterior road to the park, both may be marked by freestanding/ground signs so long as the total square footage of both signs does not exceed 60 square feet and the signs are not placed within 100 square feet of each other.
 - h. Individual buildings within the business park may be identified on the same sign structure as that listing the name of the light industrial/business park.
 - i. Freestanding signs or ground signs identifying the building and/or individual businesses on a tract shall be permitted within the respective tract or lot. Such signs shall be placed behind the right-of-way line. Only one (1) such freestanding or ground sign shall be permitted for each entrance to the tract of land on which a building is located, if such entrances are from different roads. The size of such interior freestanding or ground sign(s) shall not exceed 40 square feet. Provided however, if there are two entrances to a tract of land on which a building is located, a freestanding/ground sign may mark both so long as the total square footage of the signs does not exceed 40 square feet.
 - j. All signs within a business of industrial park in the LIB and LIB-A districts shall be consistent in design and appearance with the other signs in the same park, and, to the extent possible, shall be in harmony with the signs on adjoining lots or parks.
5. Signs in the **Open Space/Refuge district**. The following signs that require a permit and no others shall be permitted in the OSR district, subject to the following requirements:
- a. Wall, freestanding, and ground signs
 - b. Not more than one (1) wall sign shall be permitted for each building frontage.

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- c. Such wall signs shall not exceed ½ square foot of sign area for each linear foot of building frontage.
 - d. Freestanding or ground signs shall not exceed twelve (12) square feet.
 - e. All signs in the OSR district shall be harmonious and consistent with the natural features of the area and any new buildings that may be erected.
6. Signs in the **Transit Oriented Development (TOD) district**. The following signs that require a permit and no others shall be permitted in the TOD district, subject to the following requirements:
- a. Permitted signs shall include only wall signs, canopy signs, freestanding, and ground signs.
 - b. Wall signs identifying individual non-residential establishments may be placed on not more than two (2) sides of a principal building.
 - c. The size of such wall signs identifying an individual non-residential establishment shall not exceed one half (½) square foot of sign area for each foot of establishment frontage.
 - d. Wall signs identifying individual residential developments shall not exceed one half (½) square foot of sign area for each linear foot of establishment frontage.
 - e. Wall or window signs identifying apartment space and residential establishments above the first floor shall be permitted in addition to the principal wall sign permitted. Such additional wall or window signs shall not exceed six (6) square feet.
 - f. Awning signs and canopy signs shall be permitted in place of wall signs, in accordance with the requirements for wall signs in subsections 6b, 6c, and 6d above.
 - g. Not more than one (1) freestanding sign or ground sign identifying an overall transit-oriented development shall be placed along each exterior roadway frontage.
 - h. The size of such freestanding sign or ground sign shall not exceed 50 square feet, however signs identifying individual establishments may be placed on the freestanding sign

structure. These signs identifying the establishments shall be not larger than ten (10) square feet each. This area for the individual establishments shall be in addition to size allotted for identifying the development.

- i. Freestanding signs or ground signs identifying uses contained within the transit-oriented development shall be permitted along interior roads. Such signs shall be placed behind the right-of-way line. Only one (1) such freestanding or ground sign shall be permitted for each respective building within the TOD.
- k. The size of such interior freestanding or ground sign(s) shall not exceed 30 square feet.
- j. Signs in the TOD district shall be harmonious with other signage as well as consistent with the appearance of housing types, permitted uses, and group development allowed in the district.

1406

Billboards

- 1. Billboards shall be permitted along Chester Pike in the General Business district only.
- 2. No billboard shall be erected within 200 feet of another billboard.
- 3. The maximum size of billboards shall be 100 square feet.
- 4. The minimum distance from a street right-of-way shall be 30 feet.
- 5. No billboard shall be placed in a location where it will obscure the vision of motorists and thereby create a safety hazard.
- 6. The height of any billboard shall not exceed 50 feet.
- 7. Billboards shall be illuminated with external base lighting only.
- 8. All billboards shall be inspected in accordance with Section 1409.
- 9. Where a billboard contains no message for a period of 60 consecutive days, the Zoning Officer shall forward a notice to the owner of the sign advising the owner of the unused status of the structure. The owner shall be required to remove the sign and sign structure, provided that no advertising of message is placed thereon within 180 days from the original notice.

1407 Nonconforming Signs

Signs that are nonconforming or identify nonconforming uses shall be governed by the following requirements.

1. A sign which is nonconforming at the effective date of this Ordinance may be continued although such sign does not conform with the provisions of this Ordinance, but the size of any such nonconforming sign shall not be enlarged, except as permitted in Section 1802.
2. A nonconforming sign may be changed to or replaced by another nonconforming sign provided that the degree of nonconformity is not greater than that of the original sign. Whenever a nonconforming sign has been changed to a more restricted nonconforming sign, such sign shall not thereafter be changed to a less restricted nonconforming sign.
3. When the name of an establishment is changed, any nonconforming sign at such establishment must be removed, and any new sign must conform to the provisions of this Ordinance.
4. A nonconforming sign which has been damaged to more than 50 percent of its value or has been removed or discontinued for 90 days shall not be repaired, rebuilt or replaced, except as a conforming sign.
5. If a nonconforming use of a building ceases or is discontinued for a continuous period of one (1) year or more and such nonconforming use is deemed to be abandoned as per Section 1805 of this Ordinance, any nonconforming sign on the premises shall also be considered abandoned, and any subsequent signs erected or maintained on the premises shall be in conformity with the provisions of this Ordinance.

1408 Amortization of Nonconforming Signs

1. Temporary, movable freestanding signs, banners, pennants and similar types of signs shall be abated, removed or brought into compliance within 90 days after enactment of this Ordinance.
2. Signs painted on walks, fences or benches shall be removed, abated or brought into compliance within one (1) year after enactment of this Ordinance.

3. Wall signs and projecting signs shall be removed, abated, or brought into compliance within five (5) years after the enactment of this ordinance.

1409

Permits and Inspections

1. Except as otherwise provided in Section 1404 relating to exempt signs, no sign shall be erected in the Borough until a permit therefore has been obtained in the following manner:
 - a. Applications in writing for proposed signs shall be submitted to the Zoning Officer (ZO) by the person/entity desiring the permit. The ZO shall then have the option of referring the permit request to the Planning Commission for its evaluation as to whether the proposed sign complies with the purposes of the district where the sign is located and the most recently adopted Folcroft Community Development Objectives. The ZO or Planning Commission may offer suggestions to modify the proposed sign so that it is in accordance with the goals for the district in question as well as those as noted in the Community Development Objectives.
 - b. The application submitted to the ZO shall give full particulars regarding the size, shape, material and supports of the sign as well as a sketch or sketches showing the location of the sign on the building or lot, the distance from the curb line and the height of the sign. The application shall be sufficiently specific to enable the ZO to determine if the sign complies with this Ordinance as well as any other ordinance or regulation of the Borough relating thereto. A fee shall accompany such application as Borough Council may establish from time to time by resolution.
2. Whenever any sign or sign face is replaced by another sign, enlarged in any manner or altered, dismantled, damaged or otherwise destroyed, a permit shall be required as provided in 1409.1 above before the sign is replaced, enlarged, altered or repaired.
3. Unsafe and Unlawful Signs. If the ZO or Building Code Official shall find that any sign or other advertising structure regulated herein is unsafe or insecure or is a menace to the public or has been constructed or erected or is being maintained in violation of the provisions of this Ordinance, he shall give written notice thereof to the permittee. If the permittee fails to remove or alter the structure so as to comply with the standards set forth herein within ten (10) days

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after such notice, such sign or other advertising structure may be removed or altered to comply by the ZO at the expense of the permittee or owner of the property upon which it is located. The ZO shall refuse to issue a permit to any permittee or owner who refuses to pay costs so assessed. The ZO may cause any sign or other advertising structure that causes immediate peril to persons or property to be removed summarily and without notice.

4. Inspections and Fees. The ZO may cause a routine inspection of all signs in the Borough to be made at least once every three (3) years and at any other times when he deems such inspection necessary. At intervals determined by Council, the ZO or Building Code Official shall conduct a thorough inspection of signs to determine signs' conformity with the provisions within this Article. All fees for sign permits shall be paid by the individual requesting the permit and shall be determined by Borough Council.

ARTICLE 15

GENERAL REGULATIONS

1500 Purpose

The purpose of this Article is to identify certain regulations and standards that are either common to all zoning districts or applicable to more than one district.

1501 Overall Requirements

1. No building or structure, or part thereof, shall hereafter be erected, constructed or altered, and no new use or change shall be made or maintained of any building, structure, land, or part thereof, except in accordance with this Ordinance.
2. Every principal building shall hereafter be built on a lot with frontage on a public or private street.
3. No lot or premises shall hereafter be subdivided or reduced in area or size in any manner so as to violate the provisions of this Ordinance.

1502 Projections into Required Yards

1. No principal building, or part thereof, shall be erected within, or shall project into any required yard in any district, except for unenclosed porches, decks, one-story bay windows, eaves, chimneys, balconies, fire escapes, buttresses, cornices or steps. None of these, except unenclosed decks or similar projects, shall encroach more than three (3) feet into any required yard.
2. In residential districts, such unenclosed decks may extend not more than seven (7) feet into required rear yards.

1503 Visibility at Corner Lots

1. On any corner lot, no wall, fence or other structure shall be erected or maintained, and no hedge, tree, shrub or other growth shall be planted, grown or maintained which may cause danger to vehicular traffic by obscuring the view which may pose a danger to vehicular and pedestrian traffic.
2. Where a lot is located at the intersection of two or more streets, no obstruction of any kind whatsoever of a height greater than 24 inches

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from the grade level of the adjacent street shall be maintained or permitted within a sight triangle, the legs of which shall be 20 feet measured from the intersection of the street lines. Where a private alley meets an intersection, the legs of such sight triangle shall be ten (10) feet.

3. The Borough shall have the right to declare any obstruction to vision within the line of the sight triangle a safety hazard and shall direct the owner of the property to have it removed. If the owner fails to do so within 30 days after written notice, the Borough shall remove the obstruction and bill the owner and lien the property for the expense involved.

1504

Accessory Uses and Structures

1. No accessory structures may be placed in front of the principal building.
2. On corner lots, accessory structures shall be placed no closer to the side street than the principal building.
3. Except for decks and fences, there shall be a distance of not less than three (3) feet between an accessory structure and a side or rear lot line.
4. Except in the LIB – Light Industrial/Business Park and LIB-A – Light Industrial/Business Park-A districts, accessory structures shall not exceed 15 feet in height. In the LIB and LIB-A districts, accessory structures shall not exceed 25 feet in height.
5. In residential districts, not more than one (1) storage shed shall be placed on a lot.
6. Except in the LIB – Light Industrial/Business Park and LIB-A – Light Industrial/Business Park-A districts, no storage shed shall exceed 100 square feet with a maximum height of ten (10) feet.
7. Before the construction or placement of a shed on a lot, the applicant shall obtain a permit from the Building Code Official (BCO) or Zoning Officer (ZO).
8. Accessory structures shall not be used for permanent or temporary human habitation.
9. If a shed or garage is served by electricity, it shall be subject to the Borough Electrical Code.

10. Garages in residential districts may be attached to or detached from a dwelling unit. In the case a garage is in detached form, the minimum distance between the garage and a dwelling unit, excluding multi-family, shall be 15 feet.

1505

No-Impact Home Based Business

1. No-impact home-based businesses shall be permitted as an accessory use in all residential districts.
2. The business activity shall be compatible with the residential use of the property.
3. The business shall employ no employees other than family members residing in the dwelling.
4. There shall be no display or sale of retail goods and no stockpiling of inventory.
5. The business may not use any process or equipment that creates noise, vibration, glare, fumes, odors, or electrical or electronic interference with radio or television reception.
6. The business may not discharge any solid waste or sewage discharge that is not normally associated with residential use.
7. The business may not occupy more than 25% of the gross floor area of the dwelling.
8. There shall be no outside appearance of a business within the residence except for permitted signage in Section 1405.1.

1506

Community Residence Facilities, Family Based

Family based community residence facilities shall be permitted by right in the R-1 and R-2 Residential districts in accordance with the requirements below:

1. No facility shall be located within 400 feet of an existing facility.
2. There shall be not more than two (2) residents per bedroom, and this is not to exceed a maximum number of four (4) residents per facility, not including staff.

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3. There must be a 24 hour-a-day on-duty supervisor who possesses proper qualifications for the position.
4. Parking shall comply with Article 13.
5. Any alterations or additions to the exterior of a community residence facility shall be compatible with the existing structure and in keeping with the neighborhood character, excluding safety modifications.
6. All other applicable requirements of the zoning ordinance, building code, fire code, and all other applicable Borough codes and ordinances and State regulations must be met.
7. All community residence facilities will be available for reasonable periodic inspections by the BCO or ZO and other parties holding jurisdiction.
8. Each facility must receive all pertinent approvals and/or licenses from the appropriate State agencies.
9. The operator of the facility must register the facility annually with the BCO or ZO and provide the following information:
 - a. Name of operator.
 - b. Profit or non-profit status of the facility.
 - c. The registration of the facility with the Department of Public Welfare.
 - d. The name of each resident currently residing on the premises.
 - e. Other information as may be reasonably requested by the Borough.

1507

Family Day Care Homes

Family day care homes, as defined in Article 2, shall be permitted as an accessory use in the R-1 and R-2 Residential districts, subject to the following requirements:

1. Any outdoor play area must be enclosed with a fence that shall be not less than four (4) feet high and shall extend to the ground to prevent children from crawling underneath the fence.
2. Outdoor play activities shall be limited to the hours between 9:00 a.m. and 7:00 p.m.
3. Outdoor play shall not be permitted in the front yard or adjacent to an arterial road.

4. The area for pick-up and discharge of children must be free from traffic hazards.
5. The appearance and exterior design of the facility shall be compatible with the surrounding dwellings.
6. There shall be screening and planting consistent with the character of the surrounding uses.
7. The facility shall display no sign that is inconsistent with the residential character of the neighborhood and shall be subject to Section 1405.1.
8. No portion of the facility shall be within 200 feet of a gasoline service station, underground gasoline storage tanks, industrial operations, truck-loading areas or other hazardous uses or activities.
9. Each facility must have the appropriate certificates as required by the Pennsylvania Department of Public Welfare (DPW) that shall be prominently displayed in the main entrance of the facility. All day care homes must meet all current DPW regulations and any applicable Federal, State, or local laws, ordinances, and regulations, including building and fire safety codes.

1508

Child Day Care Centers

Child day care centers; as defined in Article 2, shall be a permitted use by right in the MC - Municipal Center and TOD - Transit-Oriented Development Overlay districts, and as a conditional use in the LIB – Light Industrial/Business Park district subject to the following requirements:

1. Day care centers shall be permitted as a part of a church, school, or other similar institution or as an independent use.
2. A fence not less than four (4) feet high shall be placed around all outdoor play areas. The bottom end of such fence must reach the ground to prevent children from crawling underneath.
3. Outdoor play activities shall be limited to the hours between 9:00 a.m. and 7:00 p.m.
4. Outdoor play shall not be permitted in the front yard or adjacent to an arterial road.
5. Parking shall be in accordance with Article 13.

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6. Signs shall be in accordance with Article 14.
7. Each facility shall provide for the drop-off and pick-up of children on a driveway, approved parking area, or directly in front of the facility. This area must be free from traffic hazards to children. The drop-off area shall be located immediately adjacent to the facility.
8. No part of a facility may be located within 200 feet of gasoline pumps or underground storage tanks or any other storage area for explosive or hazardous materials.
9. A planted visual screen shall be provided to protect the day care center from an adjacent use or to protect a less intense adjacent use from the activity of the day care center. Planted visual screens, where required and as defined in Article 2, shall comply with regulations in Section 1516. Opaque fences or walls may be used in place of planted visual screens.
10. When streets of different classifications are involved, access shall be provided to the street of lesser functional classification, if possible.
11. Each operator of a newly established day care center shall notify the Borough in writing at least thirty (30) days prior to the initiation of a day care center for the purpose of allowing the Borough to establish a record of such use.
12. The operator of any child day care center will allow the BCO or ZO to enter the property during business hours to inspect for compliance with the requirements of this section and all other applicable municipal and state ordinances or regulations.
13. A permit for operation shall be obtained from the BCO or ZO.
14. All facilities must be licensed by the state of Pennsylvania DPW and any other appropriate agencies.

1509 Senior Day Care Center

Senior day care centers, as defined in Article 2 shall be a use permitted by right in the MC - Municipal Center district, subject to the following requirements:

1. Accommodations shall be made for persons with a physical handicap or impediment to ensure their safety and accessibility for entrance to, movement within, and exit from the building.
2. The facility shall have at least 50 square feet of indoor space for each individual served.
3. A specified loading and/or parking area shall be available for arrival and departure of clients.
4. The facility shall be kept in a clean and sanitary condition.
5. Senior day care centers shall be permitted as part of a church, school, other similar institution, or as an independent use.
6. Parking shall be in accordance with Article 13.
7. Signs shall be in accordance with Article 14.
8. All rooms within the center shall be properly ventilated.
9. All rooms, hallways, outside doorways, and porches shall be lighted to assure safety.
10. Hours of operation shall range from 6:00 a.m. until 8:00 p.m.

1510 Decks

Decks shall be permitted in all zoning districts provided that the BCO or ZO issues a building permit.

1. The deck shall be placed not less than one (1) foot from the party wall of a twin or row dwelling or building for access and maintenance purposes.
2. Prior to constructing a deck or porch, a sketch shall be provided and a permit must be obtained from the BCO or ZO.
3. In an area where motor vehicles may park or drive, decks or porches shall have support posts constructed of concrete filled steel columns

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which shall be at least four (4) inches wide and are fastened into footings not less than six (6) inches wide.

4. After a zoning permit is issued for a deck or porch, no change in plans regarding setbacks, dimensions or heights is permissible without first receiving written permission from the BCO or ZO.
5. All materials used in the construction of a deck or porch shall comply with the most recently adopted Uniform Construction Code.

1511 **Satellite Antennas**

1. Satellite antennas shall be permitted in all zoning districts.
2. All wiring for ground-based antennas shall be underground.
3. All satellite antennas shall be adequately grounded for protection against a direct strike of lightning.
4. The installation of satellite antennas shall meet all other local, state, or federal codes where possible.

1512 **Swimming Pools, Private**

1. Private swimming pools shall not be permitted in the front yard, and no pool on a corner lot shall be placed closer to the side street than the principal building.
2. All swimming pools shall be located not less than three (3) feet from any property line and six (6) feet from the principal building.
3. For safety purposes, a fence of not less than six (6) feet high must surround all swimming pools.
4. All fences surrounding pools shall have a self-locking gate and shall be of a design and quality to adequately prevent unauthorized children or animals from entering the pool area.
5. The drainage of a pool shall comply with the discharge provisions in the Stormwater Management Ordinance adopted by the Borough.
6. No swimming pool shall be located under electric lines.
7. Pool lighting fixtures shall be placed, directed, or shielded to protect neighboring properties from light or glare.

8. Applicant for a pool shall first submit a sketch plan of such pool to the Borough.
9. A permit must be obtained from the BCO or ZO prior to construction or placement of a swimming pool.

1513

Fences and Walls

1. Except as specifically noted otherwise, no wall, fence, hedge, or similar growth in a Residential district shall exceed four (4) feet in height between the front and rear building lines, and six (6) feet in height behind the rear building line. No fence shall be constructed in front of the principal building.
2. At the periphery of a development in the RS – Retail Service district, no wall, fence, hedge, or similar growth may exceed six (6) feet in height. Individual uses may not erect fences.
3. In the GB – General Business and MC – Municipal Center districts, no wall, fence, hedge, or similar growth may exceed six (6) feet in height in the rear yard only.
4. In the LIB – Light Industrial/Business Park and LIB-A – Light Industrial/Business Park-A districts, no wall, fence, hedge, or similar growth shall exceed ten (10) feet in height along the side and rear yards.
5. Fences between properties shall be erected or placed inside the property line of the person erecting the fence.
6. No barbed wire or similar fence shall be permitted in the Borough, unless the applicant demonstrates a clear and compelling need for security prior to obtaining a building permit.
7. The fence shall be installed so that the finished side faces toward the outside of the property.
8. Hedges and other plantings, whether or not they constitute a fence, shall be trimmed so as not to grow out over sidewalks, streets, or adjoining properties.
9. Before erecting a fence, a sketch plan shall be provided and a permit must be obtained from the BCO or ZO as required in Article 20, Administration, Enforcement and Amendment.

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1514 Refuse

1. Unless specifically stated otherwise for a particular district, all refuse shall be placed in closed, vermin-proof containers.
2. In the case of multi-family buildings, non-residential buildings and townhouses in the R-2 - Townhouse district, all refuse receptacles shall be effectively screened from the view of residents and from public streets and sidewalks by means of a fence, wall or plantings. All such receptacles shall be placed on the property responsible for the refuse.
3. In all districts, refuse receptacles and dumpsters must have a fence or other screening mechanism that shall be at least the height of the receptacle. The screening mechanism employed must provide adequate access for refuse removal.

1515 Lighting

1. Multi-family dwellings and nonresidential buildings shall be properly lighted to assure safe driving conditions at night as well as security and safety of residents and patrons. All lighting shall be designed to protect neighboring properties from glare.
2. All driveways and parking areas must be adequately lighted to assure safe driving and maneuvering conditions at night as well as safety and security for residents and patrons.
3. The maximum height of light poles shall be 25 feet in the LIB – Light Industrial/Business Park, LIB-A – Light Industrial/Business Park-A, and GB – General Business districts, and 20 feet in all other districts.

1516 Planted Visual Screen

1. A planted visual screen, as defined in Article 2, shall be provided and maintained under the following circumstances. In case of conflict between a regulation in this Article and that in any individual district, the regulation in the individual district shall prevail.
 - a. When a commercial or industrial structure is constructed or extended adjacent to an existing residential use or district.
 - b. When a multi-family or townhouse building or addition thereto is proposed to abut an existing single-family detached dwelling.

- c. Where any proposed institutional use or an expansion of an existing industrial use abuts an existing residential use or residential district.
 - d. Where the LIB-A – Light Industrial/Business Park-A districts abuts any other zoning district.
 - e. Any other instance where screening is required by this Ordinance, the Borough, or by the Zoning Hearing Board.
2. Screening shall comply with the following requirements:
- a. The planted visual screen shall consist of species indigenous to the area so as to provide a year-round visual barrier.
 - b. Such screens shall incorporate earthen mounds or berms, where possible, to improve sound as well as visual buffering.
 - c. Plants shall be at least six (6) feet high when planted, and no plantings shall be placed closer than five (5) feet to the property line.
 - d. Placement of screening material shall not obscure sight lines at intersections.
 - e. All mechanical equipment not enclosed in a structure shall be fully and completely screened and landscaped in a manner compatible with the style of the buildings on the site.
3. Upon a recommendation of the Planning Commission, an opaque privacy fence or wall may be substituted for the planted screen required above. Such alternate screening must be constructed and placed so as to clearly provide an effective visual barrier.

1517

Landscaping

- 1. General Regulations
 - a. Any part or portion of a site that is not used for buildings, other structures, loading, parking spaces and aisles, sidewalks and designated storage areas, shall be planted and maintained with landscaping. Maximum advantage shall be taken of existing trees and shrubs in landscaping.

- b. All landscaped planting areas shall be planted with grass seed, sod, or other ground cover and shall be maintained and kept clean of all debris, rubbish, weeds, and tall grass, provided, however, that if such land is naturally wooded, it may continue in its natural state.
- c. Unless otherwise specified, landscaped planting areas may be part of the required front, side, and rear yards.
- d. Except for single-family and two-family dwellings, any part or portion of a site which is not used for loading and parking spaces, aisles, sidewalks, and designated storage areas shall be landscaped according to an overall plan prepared and approved as part of the development plan, or shall be left in its natural state. A replacement program for non-surviving plant material should be included.

2. Landscaping Plans

- a. Landscaping shall be installed and maintained in accordance with a landscape plan approved by the Borough Council. The landscape plan shall depict all proposed plantings which relate to, complement, screen or accentuate buildings, roads, parking areas, sidewalks, walkways, sitting areas, service or maintenance structures, courtyards and other site features.
- b. The landscaping plan shall be coordinated with the development plan and shall show the location, type, size, height and other characteristics of the proposed landscaping.
- c. The plan shall be accompanied or shall include information regarding the continued maintenance of plantings indicating that all plantings will be replaced, if damaged, diseased or dead, in locations shown on the approved plan.

3. Specific Requirements

- a. In addition to complying with Section 1517.1.a above, every new building or alteration or expansion erected after the effective date of this Ordinance, shall provide specific landscaping components as noted below.

Unless specifically stated otherwise in the specific zoning district, landscaping shall be provided as required below:

<u>Zoning District Or Use</u>	<u>Minimum Landscaping Components</u>
Retail Service and General Business	<p>One (1) tree or two (2) shrubs shall be placed in the ground or in planters for every 20 feet of building width.</p> <p>Landscaped strip not less than six (6) feet wide at front and at one side of building.</p>
Municipal Center	<p>One (1) tree or two (2) shrubs placed in ground or in planters every 15 feet at the front and at one side of building.</p> <p>Landscaped strip with grass or other ground cover, not less than six (6) feet wide at front and at one side of building.</p>
LIB and LIB-A	<p>One (1) tree or two (2) shrubs placed in ground or in planters every 15 feet at front and at one (1) side of building.</p> <p>Landscaped strip with grass or other ground cover, not less than six (6) feet wide at front and at one side of building.</p>
Apartment buildings and nonresidential buildings in residential districts	Same as Municipal Center.
Landscaping in the Transit-Oriented Development Overlay district shall be provided according to the provisions relating to the specific uses noted above.	

Folcroft Borough Code

1518 **Private Clubs**

Private clubs shall be permitted by right only in the GB - General Business district, subject to the following requirements:

1. Private clubs shall be operated for civic, cultural, educational, social, or recreational purposes.
2. The activity shall be non-commercial, non-profit, and clearly not one carried on as a business.
3. Each building or facility shall be devoted for members and their guests only.
4. No private club shall provide for eating or dining except on an incidental basis.

1519 **Drive-thru establishments**

Drive-thru establishments, as defined in Article 2, shall be permitted by right in the GB - General Business district, subject to the following regulations:

1. No drive-thru restaurant shall be located within 300 feet of an abutting residential district, a school, a place of worship, or another drive-thru restaurant.
2. Points of vehicular ingress and egress shall be limited to streets having business-zoned frontage only.
3. Driveways at the property line shall be not less than 24 or more than 30 feet in width.
4. No driveway shall be less than ten (10) feet from a property line, 30 feet from a right-of-way or an intersecting street, nor within 65 feet of another driveway serving the same parcel.
5. Outdoor trash receptacles shall be provided in such a location as to be accessible to customers and shall be emptied whenever filled, but in no case less than once each day that the restaurant is open for business.

1520 Condominiums

In the event that multi-family dwellings are converted or developed as condominiums, such condominiums shall be owned and operated in accordance with the Pennsylvania "Uniform Condominium Act" of 1980 as amended.

1521 Compatibility Standards for Uses of Same General Character

In determining if a proposed use is of the same general character as the listed uses, Borough Council and the Planning Commission shall consider the compatibility standards listed below:

1. Type and volume of sales, retail, or wholesale activity, size and type of items sold, and nature of inventory on the premises.
2. Extent of processing, assembly, warehousing, shipping, and distribution done on the premises of any dangerous, hazardous, toxic, or explosive materials.
3. The nature and location of storage and outdoor display of merchandise and the types of items stored.
4. The type, size, and nature of buildings and structures supporting the use.
5. The number of employees and customers in relation to business hours and employment shifts.
6. The business hours the use is in operation or open for business.
7. The transportation requirements for people and freight, by volume, type and characteristics of traffic generation to and from the site, trip purposes, and whether trip purposes can be shared with other uses on the site.
8. Parking characteristics, turnover and generation, ratio of the number of spaces required per unit area or activity, and potential for shared parking with other uses.
9. The tendency for attracting or repelling criminal activities to and from or on the premises.
10. The amount and nature of nuisances generated on the premises, such as noise, smoke, odor, glare, vibration, radiation, and fumes.

Folcroft Borough Code

11. Any special public utility requirements for serving the use, such as water supply, wastewater output, pre-treatment of wastes, and emissions recommended or required, and significant power structures and communication towers or facilities.

1522 **Airport Zoning**

No structure shall exceed the maximum height as calculated by reference to the Height Limitation and Zoning District Map for Folcroft Borough and the Model Airport Zoning Ordinance to Limit the Height of Objects Around Airports. The calculation of maximum heights for municipalities in airport hazard areas is required by Pennsylvania Act 164 of 1984. Folcroft Borough falls within the airport hazard area affected by the Philadelphia International Airport.

1523 **Cellular Communications Facilities**

Cellular communications facilities, as defined in Article 2, shall be a use permitted by right in both LIB/LIB-A - Light Industrial/Business Park and the MC - Municipal Center districts. Antenna Support Structure, as defined in Article 2, shall be a permitted use by right upon rooftops only in the General Business district. The following regulations shall control both facilities applicable:

1. A sketch and/or landscaping plan shall be provided to the Borough prior to development of a cellular communication facility or antenna.
2. An antenna that is attached to an existing support structure shall not exceed the height of the support structure by more than ten (10) feet.
3. Setbacks from the base of any new antenna support structure to any property line, street line, or zoning district boundary shall not be less than 500 feet.
4. The applicant shall demonstrate that the proposed antenna and antenna support structure are designed and constructed in accordance with all applicable national building standards for such facilities and structures including, but not limited to, the standards developed by the Electronics Industry Association, Institute of Electrical and Electronics Engineers, Telecommunications Industry Association, American National Standards Institute, and the Electrical Industry Association.

5. The applicant shall demonstrate that the proposed antenna and antenna support structure are safe and that the surrounding properties will not be negatively affected by support structure failure, falling ice or other debris, electromagnetic fields, or radio frequency interference. All support structures shall be fitted with anti-climbing devices, as approved by the manufacturers.
6. In order to reduce the number of antenna support structures needed in the Borough in the future, the proposed antenna support structure shall be required to accommodate, where possible, other users, including other cellular communications providers and local police, fire, and ambulance services.
7. The applicant must demonstrate that it is licensed by the Federal Communications Commission to provide wireless communications, cellular communications, and/or personal communications services.
8. A security fence not less than eight (8) feet in height shall be required around the cell site unless the antenna is mounted on an existing structure.
9. The cell site shall be fully automated and not require any maintenance workers to be present on a full-time basis.
10. Not less than two (2) parking spaces shall be provided to serve the cell site.
11. The cell site shall be kept in good repair as required by Federal Law H.R. 6180/s. 2882, the Telecommunications Authorization Act of 1992, as amended, and all Borough ordinances not inconsistent therewith.
12. Prior to the construction or installation of an antenna on an existing structure or the construction or placement of an antenna support structure, the applicant shall obtain a permit from the BCO or ZO.
13. When the antenna and antenna support structure have ceased to function and/or have been abandoned, such structures shall be removed from the site within 60 days after official abandonment. Also see "Abandonment" in Article 2, Definitions, and Section 1805 relating to abandonment of nonconforming uses.

*Folcroft Borough Code***1524 Design Standards**

This section shall apply to all structures constructed after this Ordinance is adopted and to new additions of 400 square feet or more:

1. Unless stated otherwise, the following provisions apply to design considerations in the MC - Municipal Center district, RS - Retail Service district, and GB - General Business district.
 - a. Unscreened, flat, blank walls shall be avoided to provide a pleasant pedestrian experience by connecting activities within a structure to the adjacent sidewalk and/or transit stop.
 - b. At the street level of commercial, institutional, and mixed-use buildings, not less than 50 percent of the length and 25 percent of the wall surface must be in public entranceways, windows, or retail/service display windows.
 - c. Where practicable, façades over 50 feet long shall be divided into shorter segments by repeating window patterns, change in materials, canopies, varying roof lines, or other architectural detailing.
 - d. Buildings must have at least a five (5) foot offset in all facades for every 50 feet of continuous facade. Such offsets may be met through the use of bay windows, porches, porticos, building extensions, towers, and other architectural treatments.
 - e. The street façade of principal structures shall have at least one street-oriented entrance and contain the principal windows of the structure.
 - f. Pitched roofs shall provide overhanging eaves that extend a minimum of one foot beyond the building wall.
 - g. Buildings shall contain materials, windows, doors, and architectural details that are generally compatible with those features in nearby and adjoining buildings.
 - h. Where practicable, utilities shall be placed underground in new developments.

- i. Automobile entrances to the site shall be placed in such a way as to maximize safety and efficient traffic circulation, and minimize impact on the surrounding area.
 - j. Sidewalks or walkways, not less than five (5) feet wide, shall be required in front of and/or adjacent to, commercial, institutional, and mixed-use buildings.
 - k. Sidewalks shall be constructed along the frontage of all public streets and within and along the frontage of all new development and redevelopment
 - l. In the RS - Retail Service and the MC - Municipal Center district, walkways that cross parking, loading, or driveway areas must be clearly identifiable through the use of elevation changes, different paving materials, or other similar method.
 - m. Lighting shall be provided for parking areas and pedestrian paths to ensure safety and convenience.
 - n. Where feasible, plazas shall be provided in developments greater than two acres in area. Not less than one (1) seating space for each 250 square feet of plaza area shall be provided.
 - o. Parking garages shall be served by pedestrian walkways and connection to the sidewalk/pedestrian system. These walkways shall be clearly marked and continuous in design.
 - p. Pedestrian amenities such as benches, public art, picnic areas, seating areas, fountains, planters etc., shall be located in landscaped areas, open spaces, plazas, or along public streets.
2. Unless stated otherwise, the following provisions apply to design considerations in the R-1, R-2, and R-3 – Residential districts.
- a. New residential dwellings shall be generally consistent with the design of existing neighboring dwellings.
 - b. Sidewalks shall be constructed along the frontage of all new residential buildings and additions of 400 square feet or more.

Folcroft Borough Code

- c. Where practicable, utilities shall be placed underground in new developments.
- d. Stairs and ramps consistent with ADA standards shall be provided where necessary to provide a safe route between the dwelling and the street and sidewalk.
- e. The street façade of principal structures shall have at least one street-oriented entrance and contain the principal windows of the structure

ARTICLE 18**NONCONFORMING USES, STRUCTURES AND LOTS****1800 Purpose**

Within the districts established by this Ordinance or amendments thereto, there exist certain uses, structures, and lots that were lawful before this Ordinance was enacted but which do not conform to the provisions of this Ordinance or amendment thereto. These uses, structures or lots are referred to as nonconformities. The regulations governing existing nonconforming uses, structures and lots are set forth in this Article and are intended to provide a gradual remedy for the undesirable conditions resulting from such nonconformities. While such nonconformities are generally permitted to continue, regulations are intended to restrict further investment in such nonconformities and to bring about their gradual reduction.

1801 Continuation

All structures, lots, uses of structures and uses of land that do not conform to the regulations of the district in which they are located after the effective date of this Ordinance or amendment thereto shall be regarded as nonconforming and may be continued so long as they remain otherwise lawful, including subsequent sales of property. Such uses must comply with all safety related and other applicable regulations.

1802 Enlargement

1. A nonconforming use or structure may be extended, enlarged or altered when so authorized as a special exception, provided that the following conditions are met and a zoning permit is obtained as per the requirements in Article 20:
 - a. It is clear that such enlargement or extension is not materially detrimental to the health, safety and welfare of the surrounding area.
 - b. The proposed enlargement or extension only occurs on the tract where the nonconformity is currently located.
 - c. The area devoted to the nonconforming use shall not be increased by more than 25 percent. The nonconforming structure shall not be increased by more than 25 percent of its

cubic content.

- d. Any extension or enlargement of a building shall conform to the area, height and setback regulations of the district in which it is located. In determining cubic content, that portion of a stack or projection above the highest point of the principal building shall be excluded from the calculation.
- e. Not more than one (1) extension or enlargement to a nonconforming use or structure shall be granted.

1803

Change of Use

Once changed to a conforming use, no structure or land shall be permitted to revert to a nonconforming use. A nonconforming use may be changed to another equally restrictive or more restrictive nonconforming use, when so determined by the Borough Council, subject to the following conditions:

- 1. The applicant shall show that the nonconforming use cannot be reasonably changed to a conforming use.
- 2. The applicant shall show that the proposed change will not increase external effects more than the existing nonconforming use or will be more appropriate than the existing nonconforming use with regard to:
 - a. Traffic generation and congestion.
 - b. Parking.
 - c. Noise, smoke, dust, fumes, vapors, gases, heat, odor, glare or vibration.
 - d. Outdoor storage.
 - e. Sanitary sewage disposal.
- 3. A zoning permit is obtained from the Borough as per Article 20.

1804

Enclosure

Where a nonconforming use is conducted entirely on unenclosed premises, no structure to house or enclose such use, whether or not such structure would otherwise conform to zoning regulations, shall be permitted to be erected on the premises.

*Folcroft Borough Code***1805 Abandonment**

If a nonconforming use of a building or land is abandoned for twelve (12) consecutive months or more, whereby the owner discontinues the use, the subsequent use of such a building or land shall conform to the regulations of the district in which it is located.

1806 Reconstruction

1. A nonconforming structure, a conforming structure devoted to a nonconforming use or a structure that has been legally condemned or destroyed by fire or other cause to less than 75 percent of the current value of the structure may be reconstructed and used for the same nonconforming use provided that:
 - a. The reconstructed structure shall not exceed the height, area and volume of the building destroyed or condemned.
 - b. Reconstruction of the structure shall commence within twelve (12) months from the date the structure was destroyed or condemned, unless the Borough Council shall authorize a conditional use for an extension of this time limit. However, an extension may be granted if permitting causes any delay in construction.

1807 Repairs and Maintenance

1. On any nonconforming structure or portion of a structure containing a nonconforming use, work may be done in any period of six (6) consecutive months on ordinary repairs or on repair or replacement of non-bearing walls, fixtures, wiring or plumbing, provided that the cubic content existing when it became nonconforming shall not be increased.
2. If a nonconforming structure becomes physically unsafe due to lack of repairs and maintenance and is declared by the Zoning Officer or applicable party to be unsafe by reason of physical condition, it shall not thereafter be restored or repaired except to conform to the regulations of the district in which it is located.
3. Nothing in this Ordinance shall be construed to prevent the strengthening or restoring to a safe condition of any building or part thereof declared to be unsafe by the Zoning Officer.

1808 Displacement

No nonconforming use shall displace a conforming use.

1809 Nonconforming Lots

A lot held in single and separate ownership on the effective date of this Ordinance which does not contain the required minimum area or width as stated in this Ordinance may be used for the construction, alteration or reconstruction of a building or may be otherwise used if the construction, alteration, reconstruction or other use is in compliance with the use, yard and setback provisions of this Ordinance.

1810 Reduction of Lot Area

No lot area shall be so reduced that the area of the lot or the dimensions of the open space shall be smaller than herein prescribed.

1811 Reduction of a Nonconforming Use

In any case where a nonconforming use changes to another use, it shall be permitted to continue provided the overall impact and total size of the new use is less than the previous nonconforming use and is approaching conformity.

1812 Nonconforming Signs

Regulations for nonconforming signs are in Article 14 relating to signs.

1813 Registration of Nonconforming Uses

As needed, the Zoning Officer may prepare, or cause to be prepared, a complete list of all nonconforming uses, structures, lots, and signs in the Borough.

1814 Ownership

Whenever a lot is sold to a new owner, a previously lawful nonconforming use shall be allowed to continue by the new owner.

1815 Violations

A nonconforming structure altered or a nonconforming use created in violation of any provisions in this Article shall be regarded as continuing in such violation and shall not enjoy the privilege of legal continuance conferred by Section 1801 upon other nonconforming structures and uses.

ARTICLE 19**PERFORMANCE STANDARDS**

1900

Purpose

The purpose of this Article is to ensure adequate protection for the residents of the Borough against the possible negative effects of certain uses, processes, or activities applicable to all districts but particularly commercial and industrial/business park districts.

1901

Administration**1. Interpretation and Application of Standards**

- a. The performance standards contained herein shall be the minimum standards to be met and maintained by all uses established after the effective date of this Ordinance. Standards established by the Pennsylvania Department of Environmental Protection, the United States Environmental Protection Agency, or other applicable County, State, or Federal agencies shall apply where those standards are more restrictive than the standards set forth below.
- b. If any existing use or building or other structure is extended, enlarged, or reconstructed, the performance standards herein shall only apply to such extended, enlarged, or reconstructed portion or portions of such use, building, or other structure.

2. Application Submittal

- a. Applications for industrial uses shall be accompanied by a certification from a professional engineer registered in the Commonwealth of Pennsylvania that the proposed use can meet the performance standards set forth in this Ordinance. All applications shall include, but shall not be limited to, the following informational items:
 - (1) Plans of existing and/or proposed construction and development;
 - (2) A description of existing and/or proposed machinery, processes, and products;

- (3) Specifications for the mechanisms and techniques used or proposed to be used in restricting possible dangerous or objectionable conditions as set forth in this Ordinance; and
- (4) Measurement or estimate of the amount or rate of emission of any dangerous or objectionable elements as set forth in this Ordinance.

3. Application Review

All applications for industrial uses shall be reviewed by the Borough Engineer for compliance with the performance standards listed in Section 1902. No application for an industrial use shall be approved until it is certified in writing by the Borough Engineer that the proposed use can meet these performance standards.

4. Enforcement and Costs

- a. The Zoning Officer shall investigate any purported violation of the performance standards noted below. Enforcement procedures shall be in accordance with Article 20, Administration, Enforcement, and Amendment.
- b. If violations, as alleged, are found, costs of such determinations shall be charged against those responsible for the violations, in addition to such other penalties as may be appropriate. If, however, it is determined that no violation exists, the Borough shall pay for the costs of the determination.

1902 **Performance Standards**

1. Air Quality

There shall be no emission of smoke, ash, dust, fumes, vapors, gases, or other matter, toxic or noxious, to air which violates the Pennsylvania Air Pollution Control Laws, including the standards set forth in Chapter 123 (Standards for Contaminants) and Chapter 131 (Ambient Air Quality Standards), Article 111, Title 25, Pennsylvania Department of Environmental Protection, Rules and Regulations.

2. Fire and Explosive Hazards

All activities and all storage of flammable and explosive material at any point shall be provided with adequate safety devices against the

Folcroft Borough Code

hazard of fire and explosion, adequate fire fighting, fire suppression equipment, and devices as detailed and specified by the laws of the Commonwealth of Pennsylvania. All buildings, structures, and activities within such facilities shall conform to the most recently adopted Pennsylvania Uniform Construction Code, the National Fire Code, and any applicable Borough ordinances. Any explosive material shall conform to the requirements of Chapter 211, Title 25, Rules and Regulations, Pennsylvania Department of Environmental Protection, for storing, handling, and use of explosives.

3. Glare and Heat

No direct or sky-reflected glare, whether from floodlights or high temperature processes such as combustion, welding, or otherwise, visible at the lot line, shall be permitted, except for emergency industrial operations and safety purposes. These regulations shall not apply to signs or floodlighting of parking areas. There shall be no emission or transmission of heat or heated air discernible at the lot line.

4. Liquid and Solid Waste

There shall be no discharge of materials at any point into any public or private sewage system, watercourse, or into the ground in such a way or nature as will contaminate or otherwise cause the emission of hazardous materials in violation of the ordinances of Folcroft Borough and the laws of the Commonwealth of Pennsylvania, specifically of Chapters 73, 75, 95, and 97, Title 25, Pennsylvania Department of Environmental Protection, Rules and Regulations.

5. Noise

No person shall operate or cause to be operated on private or public property any source of continuous sound (any sound which is static, fluctuating or intermittent with a recurrence greater than one (1) time in any 15 second interval) in such a manner as to create a sound level which exceeds the limits set forth in the following table when measured at or within the property boundary of the receiving land use.

<u>Receiving Land Use Category</u>	<u>Time</u>	<u>Sound Level Limit</u>
Residential, public space, open space or institutional	1) 7:00 a.m.-10:00 p.m.	60 dBA
	2) 10:00 p.m.-7:00 a.m. (incl. Sundays and legal holidays)	50 dBA
Commercial or business	1) 7:00 a.m.-10:00 p.m.	65 dBA
	2) 10:00 p.m.-7:00 a.m. (incl. Sundays and legal holidays)	60 dBA
Industrial	At all times	70 dBA

- a. For any source of sound that emits a pure tone, the maximum sound level limits set forth in the above table shall be reduced by five (5) dBA. For any source of sound which emits an impulsive sound (a sound of short duration, with an abrupt onset and rapid decay and an occurrence of not more than one time in any 15 second interval), the sound pressure level shall not exceed 20 dBA over the ambient sound level, regardless of time of day or night of receiving land use, using the "fast" meter characteristics of a Type II Meter, meeting the ANSI specifications S1.4-1971.
- b. The maximum permissible sound levels as listed in the above table shall not apply to any of the following noise sources:
 - (1) The emission of sound for the purpose of alerting persons to the existence of an emergency or associated practice drills.
 - (2) Emergency work to provide electricity, water, or other public utilities when public health or safety is involved.
 - (3) Public celebrations specifically authorized by the Borough.
- c. Motor vehicle operations shall not exceed the noise levels established in Chapter 157 of Title 67 of the Pennsylvania Code of Regulations, Subchapter B, Established Sound Levels.

Folcroft Borough Code

6. Odors

No uses shall emit odorous gases or other odorous matter in such quantities so as to be offensive at any point on or beyond its lot lines. The guide for determining such quantities of offensive odors shall be the 50 percent response level of Table 1 (Odor Thresholds in Air), "Research of Chemical Odors: Part I - Odor Thresholds for 53 Commercial Chemicals," October, 1986, Manufacturing Chemists Association, Inc., Washington, D.C.

7. Vibration

No vibration shall be produced that is transmitted through the ground and is discernible without the aid of instruments at or at any point beyond the lot line except for repair and construction work.

8. Radioactivity or Electrical Disturbances

There shall be no activities that emit dangerous radioactivity at any point. There shall be no radio or electrical disturbances adversely affecting the operation of equipment belonging to someone other than the creator of the disturbance. If any use is proposed which incorporates the use of any radioactive material, equipment, or supplies, such use shall be in strict conformity with Chapters 221, 223, 225, 227, and 229, Title 25, Article V, Pennsylvania Department of Environmental Protection, Rules and Regulations.

9. Public Health and Safety

No use shall create any other objectionable condition in an adjoining area that will endanger public health and safety or be detrimental to the public use of the surrounding area.

Tromco Enterprises, L.L.C.

*P.O Box 534
Cherry Hill, NJ 08003-0534
(856) 266-0163*

April 29, 2009

Mr. John J. Coyle, IV
Coyle, Lynch and Company
PO Box 157
Sharon Hill, PA 19079

Re: Component Cost Estimate
5 Horne Drive
Folcroft, Pennsylvania

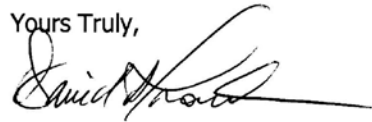
Dear John:

At your request, please find attached the component cost estimate for the above referenced facility as of June 1, 2008.

I utilized the 2008 RS Means Square Foot Costs Manual, 29th Annual Edition for pricing and factoring the cost for this project.

Should you have any questions or require further assistance, do not hesitate to call on me as I am

Yours Truly,



DAVID A. TROMMELEN

COMPONENT COST ESTIMATE

		101	OVERALL	STRUCT	Grand Total
		Industrial Building	Overall Land Improvements	Above and Below Ground Improvements	
					0
01	Foundations	465,100			465,100
02	Substructure	320,700			320,700
03	Superstructure	1,231,500			1,231,500
04	Exterior Closure	677,000			677,000
05	Roofing	247,400			247,400
06	Interior Construction	508,700			508,700
08	Mechanical - Plumbing	99,700			99,700
09	Mechanical - Heating and Air Conditioning	191,400			191,400
10	Mechanical - Ventilating	14,000			14,000
11	Mechanical - Fire Protection	1,700			1,700
12	Electrical System	455,000			455,000
13	Special Construction	379,700			379,700
14	Sitework Within Building Perimeter	4,700			4,700
	Sub Total	4,596,600	0	0	4,596,600
29	Land Improvements - Overall Site Preparation		85,000		85,000
79	Land Improvements - Structures Above and Below Grade			388,900	388,900
89	Other Improvements				0
	Grand Total	4,596,600	85,000	388,900	5,070,500

Reconstruction Cost Summary													4/29/2009	
Job#	04-202												Sheet 1	
Property#	1												Page 1	
Client	JOHN J. COYLE, IV - DEMONSTRATION													
Property														
Address	5 HORNE DRIVE													
													Used in Cals	
													36,940	
													36,940	

COMPONENT COST ESTIMATE

GROUP MULTIPLIER

Page: 1

Job#: 04-202
Property#: 1
Client: JOHN J. COYLE, IV - DEMONSTRATION

BUILDING

Sequence	Line Type	Description	Multiplier
00.010	D	MOBILIZATION	1.0010
00.015	D	LOCATIONAL PRICE ADJUSTMENT	1.1500
00.020	D	TREND FACTOR	1.0000
00.025	D	CONTINGENCY	1.0000
00.030	D	GENERAL CONDITIONS	1.0500
00.035	D	GENERAL CONTRACTOR OVERHEAD AND PROFIT	1.0300
00.040	D	WORKING CONDITIONS	1.0000
00.045	D	PROJECT SCALE	0.9500
00.050	D	QUALITY OF CONSTRUCTION	1.0000
00.055	D	SALES TAX	1.0300
00.060	D	CONSTRUCTION MANAGEMENT FEE	1.0000
00.065	D	ARCHITECTURAL AND ENGINEERING FEE	1.0300
00.070	D	FINANCE CHARGES	1.0150
00.075	D	MORTGAGE INTEREST DURING CONSTRUCTION	1.0700
00.080	D	REAL ESTATE TAXES - LAND	1.0200
00.085	D	REAL ESTATE TAXES - IMPROVEMENTS	1.0100
00.090	D	CLOSING COSTS	1.0100
00.095	D	LEGAL FEES/ZONING/ENVIRONMENTAL	1.0100
00.100	D	SPECIAL PERMITS	1.0000
00.105	D	FINAL INSPECTION, TESTING & COMMISSIONING	1.0050
00.110	D	DEVELOPERS FEE	1.0000
00.115	D	ENTREPRENEURIAL PROFIT	1.1000
10.000	T	TOTAL FACTOR	1.5832

COMPONENT COST ESTIMATE

GROUP MULTIPLIER

Page: 2

Job#: 04-202
Property#: 1
Client: JOHN J. COYLE, IV - DEMONSTRATION

LAND

Sequence	Line Type	Description	Multiplier
00.010	D	MOBILIZATION	1.0010
00.015	D	LOCATIONAL PRICE ADJUSTMENT	1.1500
00.020	D	TREND FACTOR	1.0000
00.025	D	CONTINGENCY	1.0000
00.030	D	GENERAL CONDITIONS	1.0500
00.035	D	GENERAL CONTRACTOR OVERHEAD AND PROFIT	1.0300
00.040	D	WORKING CONDITIONS	1.0000
00.045	D	PROJECT SCALE	0.9500
00.050	D	QUALITY OF CONSTRUCTION	1.0000
00.055	D	SALES TAX	1.0300
00.060	D	CONSTRUCTION MANAGEMENT FEE	1.0000
00.065	D	ARCHITECTURAL AND ENGINEERING FEE	1.0300
00.070	D	FINANCE CHARGES	1.0150
00.075	D	MORTGAGE INTEREST DURING CONSTRUCTION	1.0700
00.080	D	REAL ESTATE TAXES - LAND	1.0200
00.085	D	REAL ESTATE TAXES - IMPROVEMENTS	1.0100
00.090	D	CLOSING COSTS	1.0100
00.095	D	LEGAL FEES/ZONING/ENVIRONMENTAL	1.0100
00.100	D	SPECIAL PERMITS	1.0000
00.105	D	FINAL INSPECTION, TESTING & COMMISSIONING	1.0050
00.110	D	DEVELOPERS FEE	1.0000
00.115	D	ENTREPRENEURIAL PROFIT	1.1000
10.000	T	TOTAL FACTOR	1.5832

Job# 04-202

Property# I

Client JOHN J. COYLE, IV - DEMONSTRATION

Property

Address 5 HORNE DRIVE

Imp#: 101

Industrial Building

Sect	Seq	Type	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Hight Adj	#Stry Adj	Curr Mult	TotCost RndCost	EEFAGE UseLife	PhyDet	PhyDep Cost	WghtEEFAGE WghtUsLf	Wght%RCN WghtPhyDet
MULT 00.100 D 1.5832																
Description: COMPOSITE FACTOR																
Comments: BUILDING																
MULT 00.990 T 1.5832																
Description: TOTAL FACTOR																
Comments: BUILDING																
BLDG 01.000 H																
Description: FOUNDATIONS																
Comments: -																
BLDG 01.200 D 0 33,040.00 SF																
Description: FOUNDATION EXCAVATION AND BACKFILL																
Comments: -																
Year: 2008 Section: 20 Page: 248 Line: A2010-110-2260																

For This Improvement:

Gross Sq Ft 36,940

Used in Calcs 36,940

4/29/2009

Sheet 1

Page 1

Reconstruction Cost Worksheet														For This Improvement:		4/29/2009	
Job#	04-202	Property#	1	Client	JOHN J. COYLE, IV - DEMONSTRATION										Used in Calcs	Sheet	2
Property		Address	5 HORNE DRIVE												36,940	Page	2
Imp#:	101	Industrial Building												36,940			
Sect	Seq	Type	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Height Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge UseLife	PhyDet	PhyDep Cost	WghtEffAge WghtUsLf	Wght%RCN WghtPhyDet	
BLDG	01.500	D	0	360.00	CY		\$360.00	1.00	1.00	1.0000	\$205,183	35,000 yr			1.562 yr	4.46 %	
Description: FOUNDATION WALLS / FOOTINGS: REINFORCED CONCRETE													\$89,800	\$115,400	3.571 yr	1.95 %	
												\$5.55 perSF	43.750 %				
Comments:																	
Source: RS Means Building Construction Cost Data Manual Year: 2008 Section: 03 Page: 62 Line: 033053.40-3850																	
BLDG	01.900	D	0	132.00	Each		\$8.65	1.00	1.00	1.0000	\$1,808	35,000 yr			0.014 yr	0.04 %	
Description: FOUNDATION ANCHOR BOLTS: 5/8" X 1.5' STEEL ASSEMBLIES; "J" TYPE; WASHER; NUT													\$800	\$1,000	0.031 yr	0.02 %	
												\$0.05 perSF	43.750 %				
Comments:																	
Source: RS Means Building Construction Cost Data Manual Year: 2008 Section: 03 Page: 50 Line: 031505.02-0250																	
BLDG	01.910	D	0	6,500.00	SF		\$1.04	1.00	1.00	1.0000	\$10,702	35,000 yr			0.081 yr	0.23 %	
Description: FOUNDATION INSULATION: FOAMBOARD; 1" THICK; R 4													\$4,700	\$6,000	0.186 yr	0.10 %	
												\$0.29 perSF	43.750 %				
Comments:																	
Source: RS Means Building Construction Cost Data Manual Year: 2008 Section: 07 Page: 186 Line: 072113.13-0600																	
BLDG	01.990	S									\$465,114		\$203,500	\$261,600	3.541 yr	10.12 %	
Description: SUBTOTAL - FOUNDATIONS															8.094 yr	4.43 %	
												\$12.59 perSF					
Comments:																	

Comments:

BLDG	02.200	D	0	33,040.00 SF	\$6.13	1.00	1.00	1.0000	\$320,654	35,000 yr	2.442 yr	6.98 %
Description: CONCRETE FLOORS: 5" REINFORCED												
									\$320,700	60,000 yr	4.186 yr	4.07 %
									\$187,000			
									\$8.68 netSF	58.333 %		

Comments:

Source: RS Means Square Foot Costs Manual

BLDG	02,990	\$			
Description: SUBTOTAL - SUBSTRUCTURE					
		\$320,654			2.442 yr
		\$320,700	\$187,000	\$133,700	4.186 yr
		\$8.68	perSF		4.07 %

Comments:

BLDG 03.000 H
Description: SUPERSTRUCTURE

Comments:

Reconstruction Cost Worksheet													For This Improvement:		4/29/2009	
Job# 04-202	Property# 1	JOHN J. COYLE, IV - DEMONSTRATION										Gross Sq Ft	36,940	Used in Calcs	Sheet 4	
Client	5 HORNE DRIVE											Rentable Sq Ft	36,940		Page 4	
Property												Production Bbl				
Address												Storage Bbl				
Imp#: 101	Industrial Building															
Sect	Seq	Type	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Adj	#Stry Adj	Curr Mult	ToCost RndCost	PhyDet	PhyDep Cost	WghtEFAge WghtUSLf WghtPhyDet (Weighted by This Improvement)	Wght%RCN WghtPhyDet	
BLDG	03.100	D		0	185.00 Ton		\$3,525.00	1.00	1.00	1.0000	\$1,032,444			7.861 yr	22.46 %	
Description: STRUCTURAL STEEL FRAMING;FIRST FLOOR; MECHANICAL LIFT ALLOWANCE; MISCELLANEOUS																
Comments: Source: RS Means Building Construction Cost Data Manual Year: 2008 Section: 05 Page: 116 Line: 051223.77-3400																
BLDG	03.520	D		0	31,765.00 SF		\$2.77	1.00	1.00	1.0000	\$139,304			1.061 yr	3.03 %	
Description: STRUCTURAL ROOF DECKING; METAL; FLAT ROOF AREAS																
Comments: Source: RS Means Building Construction Cost Data Manual Year: 2008 Section: 05 Page: 123 Line: 053123.50-2600																
BLDG	03.700	D		0	2,000.00 SF		\$5.58	1.00	1.00	1.0000	\$17,669			0.135 yr	0.38 %	
Description: STRUCTURAL ELEVATED FLOORS SHOP MEZZANINE; METAL DECKING AND 4" CONCRETE FILL																
Comments: Source: RS Means Assemblies Cost Data Manual Year: 2008 Section: 10 Page: 278 Line: B1010-261-3700																
BLDG	03.710	D		0	1,900.00 SF		\$3.28	1.00	1.00	1.0000	\$9,867			0.075 yr	0.22 %	
Description: STRUCTURAL ELEVATED FLOORS OFFICE MEZZANINE; WOOD FRAMING AND PLYWOOD DECKING																
Comments: Source: RS Means Assemblies Cost Data Manual Year: 2008 Section: 10 Page: 278 Line: B1010-261-3700																
Description: STRUCTURAL ELEVATED FLOORS OFFICE MEZZANINE; WOOD FRAMING AND PLYWOOD DECKING																
Comments: Source: RS Means Assemblies Cost Data Manual Year: 2008 Section: 10 Page: 278 Line: B1010-261-3700																
Description: STRUCTURAL ELEVATED FLOORS OFFICE MEZZANINE; WOOD FRAMING AND PLYWOOD DECKING																
Comments: Source: RS Means Assemblies Cost Data Manual Year: 2008 Section: 10 Page: 278 Line: B1010-261-3700																

Reconstruction Cost Worksheet																For This Improvement:		4/29/2009				
Job#	Property#	Client	Property	Address	Imp#:	Sect	Seq	Type	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Hght Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge UseLife	PhyDet	PhyDep Cost	WghtEffAge WghtUSLf	Wght%RCN WghtPhyDet (Weighted by This Improvement)
04-202	I	JOHN J. COYLE, IV - DEMONSTRATION		5 HORNE DRIVE	101																	

Reconstruction Cost Worksheet													For This Improvement:		4/29/2009	
Job# 04-202	Property# I	JOHN J. COYLE, IV - DEMONSTRATION										Gross Sq Ft	Used in Calcs	Sheet 6		
Client	Property	5 HORNE DRIVE										36,940	36,940	Page 6		
Address	Imp#: 101	Industrial Building										Rentable Sq Ft				
												Production Bbl				
												Storage Bbl				
Sect	Seq	Type	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Height Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge UseLife	PhyDet	PhyDep Cost	WghtEffAge WghtUsLf	Wght%RCN WghtPhyDet (Weighted by This Improvement)
BLDG	04.210	D		0	4,400.00 SF		\$30.70	1.00	1.00	1.0000	\$213,859	35,000 yr			1.628 yr	4.65 %
Description: EXTERIOR WALLS: BRICK FACE COMPOSITE WALL; 8" MASONRY WALL																
BACK-UP; REINFORCED; STYROFOAM INSULATION FACE BRICK																
\$5.79 perSF 77.778 %																
Comments: Source: RS Means Square Foot Costs Manual Year: 2008 Section: 20 Page: 292 Line: B2010-111-5500																
BLDG	04.250	D		0	16,000.00 SF		\$0.47	1.00	1.00	1.0000	\$11,906	2,000 yr			0.005 yr	0.26 %
Description: EXTERIOR FINISHES: MASONRY WALLS; PAINT TWO COATS; SPRAY																
\$0.32 perSF 28.571 %																
Comments: Source: RS Means Building Construction Cost Data Manual Year: 2008 Section: 09 Page: 303 Line: 09913.90-0460																
BLDG	04.290	D		0	275.00 LF		\$36.05	1.00	1.00	1.0000	\$15,695	35,000 yr			0.120 yr	0.34 %
Description: EXTERIOR WALL LINTELS: PRECAST CONCRETE																
\$0.43 perSF 77.778 %																
Comments: Source: RS Means Square Foot Costs Manual Year: 2008 Section: 20 Page: 289 Line: B2010-105-8460																
BLDG	04.315	D		0	2.00 Each		\$3,875.00	1.00	1.00	1.0000	\$12,270	2,000 yr			0.005 yr	0.27 %
Description: EXTERIOR PEDESTRIAN DOORS: ALUMINUM / GLASS; DOUBLE; PANIC																
HARDWARE																
\$0.33 perSF 10.000 %																
Comments: Source: RS Means Square Foot Costs Manual Year: 2008 Section: 20 Page: 322 Line: B2030-110-7000																

Reconstruction Cost Worksheet															For This Improvement:			4/29/2009	
Job# 04-202	Property# 1	JOHN J. COYLE, IV - DEMONSTRATION												Used in Calcs		Sheet 7			
Client	Property	5 HORNE DRIVE												Gross Sq Ft	36,940	Production Bbl	Storage Bbl	Page 7	
Address	Imp#:	101	Industrial Building										Rentable Sq Ft	36,940					
Sect	Seq	Type	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Hght Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge UseLfc	PhyDet	PhyDep Cost	WghtEffAge WghtUSLf	WghtPhyDet	RCN		
Description: EXTERIOR PEDESTRIAN DOORS: STEEL; SINGLE; HARDWARE																			
BLDG 04.320	D		0		6.00 Each		\$1,518.00	1.00	1.00	1.0000	\$14,420	18,000 yr				0.056 yr	0.31 %		
												\$0.39 perSF							
Description: EXTERIOR OVERHEAD DOORS: (7) STEEL; ROLLING; ELECTRIC OPERATOR																			
BLDG 04.440	D		0		950.00 SF		\$29.34	1.00	1.00	1.2500	\$55,161	15,000 yr				0.180 yr	1.20 %		
												\$1.49 perSF							
Description: EXTERIOR WINDOWS: 2.5' X 4'; ALUMINUM SLIDER																			
BLDG 04.500	D		0		5.00 Each		\$568.33	1.00	1.00	1.0000	\$4,499	18,000 yr				0.018 yr	0.10 %		
												\$0.12 perSF							
Description: EXTERIOR WINDOWS: 3' X 2'; ALUMINUM SLIDER																			
BLDG 04.510	D		0		10.00 Each		\$341.00	1.00	1.00	1.0000	\$5,399	18,000 yr				0.021 yr	0.12 %		
												\$0.15 perSF							
Description: EXTERIOR WINDOWS: 3' X 2'; ALUMINUM SLIDER																			
BLDG 04.510	D		0		10.00 Each		\$341.00	1.00	1.00	1.0000	\$5,400	20,000 yr				0.023 yr	0.11 %		
												\$0.15 perSF							
Description: EXTERIOR WINDOWS: 3' X 2'; ALUMINUM SLIDER																			
BLDG 04.510	D		0		10.00 Each		\$341.00	1.00	1.00	1.0000	\$5,400	20,000 yr				0.023 yr	0.11 %		
												\$0.15 perSF							
Description: EXTERIOR WINDOWS: 3' X 2'; ALUMINUM SLIDER																			
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Description: EXTERIOR WINDOWS:																			

Job# 04-202	Reconstruction Cost Worksheet										For This Improvement:		4/29/2009		
Property# 1											Gross Sq Ft	Used in Calcs	Sheet 8		
Client JOHN J. COYLE, IV - DEMONSTRATION											Rentable Sq Ft		Page 8		
Property											Production Bbl				
Address 5 HORNE DRIVE											Storage Bbl				
Imp#: 101	Industrial Building														
Sect	Seq	Type	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge UseLife	PhyDet	PhyDep Cost	WghtEffAge WghtUsLf WghtPhyDet (Weighted by This Improvement)
BLDG 04.530 D	0		2.00	Each			\$503.25	1.00	1.00	1.0000	\$1,593	18,000 yr			0.006 yr 0.04 %
Description: EXTERIOR WINDOWS: 3' X 3'; ALUMINUM; DOUBLE HUNG; STANDARD GLASS															
Comments: Unit price adjusted according to window size.															
Source: RS Means Square Foot Costs Manual															
Year: 2008 Section: 20 Page: 319 Line: B2020-106-7300															
BLDG 04.532 D	0		2.00	Each			\$671.00	1.00	1.00	1.0000	\$2,125	18,000 yr			0.008 yr 0.05 %
Description: EXTERIOR WINDOWS: 3' X 4'; ALUMINUM; DOUBLE HUNG; STANDARD GLASS															
Comments: Unit price adjusted according to window size.															
Source: RS Means Square Foot Costs Manual															
Year: 2008 Section: 20 Page: 319 Line: B2020-106-7300															
BLDG 04.534 D	0		9.00	Each			\$1,140.00	1.00	1.00	1.0000	\$16,244	2,000 yr			0.007 yr 0.35 %
Description: EXTERIOR WINDOWS: 4' X 5'; ALUMINUM; HINGED SWING BOTTOM SECTION; INSULATED GLASS															
Comments: Unit price adjusted according to window size.															
Source: RS Means Square Foot Costs Manual															
Year: 2008 Section: 20 Page: 320 Line: B2020-106-7950															
BLDG 04.536 D	0		7.00	Each			\$214.50	1.00	1.00	1.0000	\$2,377	18,000 yr			0.009 yr 0.05 %
Description: EXTERIOR WINDOWS: 2' X 3'; ALUMINUM; FIXED PICTURE; STANDARD GLASS															
Comments: Unit price adjusted according to window size.															
Source: RS Means Square Foot Costs Manual															
Year: 2008 Section: 20 Page: 320 Line: B2020-106-8200															

COMPONENT COST ESTIMATE

Job# 04-202	Reconstruction Cost Worksheet										4/29/2009			
Property# 1											Sheet 9			
Client JOHN J. COYLE, IV - DEMONSTRATION											Page 9			
Property Address 5 HORNE DRIVE														
Imp# 101	Industrial Building													
Sect Seq Typ	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Height Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge UsdLife	PhyDep Cost	PhyDet	WghtUsLf WghtPhyDet (Weighted by This Improvement)	Wght%RCN WghtPhyDet
BLDG 04.610 D	0	10.00 SF			\$38.00	1.00	1.00	1.0000	\$602	35,000 yr			0.005 yr	0.01 %
Description: EXTERIOR LOUVERS: ALUMINUM; STORMPROOF									\$600	45,000 yr	\$500		0.006 yr	0.01 %
									\$0.02 perSF	77.778 %				
Comments:												Line: 233715.40-5000		
Source: RS Means Building Construction Cost Data Manual	Year: 2008	Section: 23	Page: 473											
BLDG 04.905 D	0	1.00 Each			\$1,200.00	1.00	1.00	2.0000	\$3,800	28,000 yr			0.023 yr	0.08 %
Description: EXTERIOR CANOPY: MAIN ENTRANCE; ALUMINUM									\$3,800	30,000 yr	\$3,500		0.025 yr	0.08 %
									\$0.10 perSF	93.333 %				
Comments:												Line: 107316.20-2500		
Source: RS Means Building Construction Cost Data Manual	Year: 2008	Section: 10	Page: 332											
BLDG 04.910 D	0	1,300.00 LF			\$2.24	1.00	1.00	1.0000	\$4,610	2,000 yr			0.002 yr	0.10 %
Description: EXTERIOR FINISHES: CAULKING									\$4,600	10,000 yr	\$900		0.010 yr	0.02 %
									\$0.12 perSF	20,000 %				
Comments:												Line: 079210.10-1700		
Source: RS Means Building Construction Cost Data Manual	Year: 2008	Section: 07	Page: 214											
BLDG 04.990 S									\$676,992				4,472 yr	14.73 %
Description: SUBTOTAL - EXTERIOR CLOSURE									\$677,000		\$501,300		5,862 yr	10.91 %
									\$18.32 perSF					
Comments:														

Reconstruction Cost Worksheet																		For This Improvement:				4/29/2009			
Job#	Property#	Client	Property Address															Gross Sq Ft	Used in Calcs	Sheet					
04-202	1	JOHN J. COYLE, IV - DEMONSTRATION	5 HORNE DRIVE															36,940		11					
																		36,940		Page					
																				11					
				Imp#:	101	Industrial Building												Production Bbl	Storage Bbl						
Sect	Seq	Type	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Height Adj	#Stry Adj	Curr Mult	ToCost RndCost	EffAge UseLife	PhyDet	PhyDep Cost	WghtEffAge WghtUSLf	Wght%RCN WghtPhyDet	(Weighted by This Improvement)								
BLDG	05.310	D	0	1,275.00	SF		\$2.93	1.00	1.00	1.0000	\$5,914	20,000 yr				0.026 yr	0.13 %								
Description: ROOF INSULATION: SPRAY; STEEL APPLIED; FIRE PROOF; WALL AND CEILING STRUCTURES																		\$3,900	\$2,000	0.039 yr	0.09 %				
																		\$0.16 perSF	66.667 %						
Comments:																		Year: 2008 Section: 07 Page: 188 Line: 072126.10-0600							
Source: RS Means Building Construction Cost Data Manual																									
BLDG	05.700	D	0	50.00	LF		\$6.15	1.00	1.00	1.0000	\$487	20,000 yr				0.002 yr	0.01 %								
Description: ROOF GUTTERS: PAINTED STEEL; EAVE TYPE																		\$300	\$200	0.003 yr	0.01 %				
																		\$0.01 perSF	66.667 %						
Comments:																		Year: 2008 Section: 30 Page: 331 Line: B3010-610-1000							
Source: RS Means Square Foot Costs Manual																									
BLDG	05.725	D	0	24.00	Each		\$259.00	1.00	1.00	1.0000	\$9,841	20,000 yr				0.043 yr	0.21 %								
Description: ROOF SCUPPERS: PAINTED METAL																		\$6,600	\$3,200	0.064 yr	0.14 %				
																		\$0.27 perSF	66.667 %						
Comments:																		Year: 2008 Section: 22 Page: 440 Line: 221426.16-5000							
Source: RS Means Building Construction Cost Data Manual																									
BLDG	05.730	D	0	500.00	LF		\$4.51	1.00	1.00	1.0000	\$3,570	20,000 yr				0.016 yr	0.08 %								
Description: ROOF DOWNSPOUTS: PAINTED																		\$2,400	\$1,200	0.023 yr	0.05 %				
																		\$0.10 perSF	66.667 %						
Comments:																		Year: 2008 Section: 30 Page: 331 Line: B3010-620-1300							
Source: RS Means Square Foot Costs Manual																									

Reconstruction Cost Worksheet															For This Improvement:		4/29/2009	
Job#	04-202	Property#	1	Client	JOHN J. COYLE, IV - DEMONSTRATION										Used in Calcs		Sheet	12
Property		Address	5 HORNE DRIVE														Page	12
Imp#:	101	Industrial Building													36,940			
Sect	Seq	Type	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Adj	Stry Height	#Stry Adj	Curr Mult	TotCost RndCost	EffAge UseLife	PhyDet	PhyDep Cost	WghtEffAge WghtUsLf WghtPhyDet (Weighted by This Improvement)		
BLDG 05.905 D	0			448.00	SF		\$27.45	1.00	1.00	1.00	1.0000	\$19,470	20,000 yr			0.085 yr 0.42 %		
Description: ROOF SKYLIGHTS: ASSEMBLIES; ALUMINUM CURB; HOUSING AND ACRYLIC GLAZING												\$19,500	30,000 yr	\$13,000	\$6,500	0.127 yr 0.28 %		
												\$0.53 perSF						
Comments:																		
Source: RS Means Square Foot Costs Manual																		
Year: 2008 Section: 30 Page: 332 Line: B3020-110-5600																		
BLDG 05.910 D	0			1.00	Each		\$980.00	1.00	1.00	1.00	1.0000	\$1,552	20,000 yr			0.007 yr 0.03 %		
Description: ROOF VENTILATOR: GALVANIZED STEEL; GRAVITY; STATIONARY												\$1,600	25,000 yr	\$1,200	\$400	0.008 yr 0.03 %		
												\$0.04 perSF						
Comments:																		
Source: RS Means Building Construction Cost Data Manual																		
Year: 2008 Section: 23 Page: 473 Line: 233723 10-2380																		
BLDG 05.915 D	0			1,400.00	SF		\$9.40	1.00	1.00	1.00	1.0000	\$20,835	20,000 yr			0.091 yr 0.45 %		
Description: ROOF FLASHINGS: ALUMINUM, PAINTED												\$20,800	25,000 yr	\$16,700	\$4,100	0.113 yr 0.36 %		
												\$0.56 perSF						
Comments:																		
Source: RS Means Building Construction Cost Data Manual																		
Year: 2008 Section: 30 Page: 331 Line: B3010-630-5200																		
BLDG 05.990 S												\$247,355				1.078 yr 5.38 %		
Description: SUBTOTAL - ROOFING												\$247,400		\$191,300	\$56,100	1.397 yr 4.16 %		
												\$6.71 perSF						
Comments:																		

Reconstruction Cost Worksheet																	For This Improvement:		4/29/2009	
Job#	04-202																Gross Sq Ft	Used in Calcs	Sheet	
Property#	I																Rentable Sq Ft		13	
Client	JOHN J. COYLE, IV - DEMONSTRATION																Production Bbl		Page	
Property																	Storage Bbl		13	
Address	5 HORNE DRIVE																			
Imp#:	101	Industrial Building																		
Sect	Seq	Type	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Height Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge UseLife	PhyDet	PhyDep Cost	WghtEffAge WghtUSLF	Wght%RCN WghtPhyDet				
BLDG 06.000 H																				
Description: INTERIOR CONSTRUCTION																				
Comments:																				
BLDG 06.200 D	0	5,400.00 SF					\$2.15	1.00	1.00	1.0000	\$18,381	15,000 yr			0.060 yr	0.40 %				
Description: INTERIOR WALL PARTITIONS: PERIMETER, METAL STUDS, DRYWALL ONE SIDE; TAPED AND SPACKLED FINISH																				
											\$18,400	25,000 yr	\$11,000	\$7,400	0.100 yr	0.24 %				
											\$0.50 perSF	60,000 %								
Comments:																				
Source: RS Means Square Foot Costs Manual																				
Year: 2008 Section: 10 Page: 338 Line: C1010-126-5300																				
BLDG 06.210 D	0	6,200.00 SF					\$3.55	1.00	1.00	1.0000	\$34,846	15,000 yr			0.114 yr	0.76 %				
Description: INTERIOR WALL PARTITIONS: METAL STUDS, BATT INSULATION; DRYWALL BOTH SIDES TO THE UNDESIDE OF STRUCTURE																				
											\$34,800	25,000 yr	\$20,900	\$13,900	0.190 yr	0.46 %				
											\$0.94 perSF	60,000 %								
Comments:																				
Source: RS Means Square Foot Costs Manual																				
Year: 2008 Section: 10 Page: 338 Line: C1010-126-5450																				
BLDG 06.300 D	0	31.00 Each					\$842.00	1.00	1.00	1.2500	\$51,656	15,000 yr			0.169 yr	1.12 %				
Description: INTERIOR DOORS: SINGLE; METAL FRAME AND WOOD DOOR																				
											\$51,700	20,000 yr	\$38,700	\$13,000	0.225 yr	0.84 %				
											\$1.40 perSF	75,000 %								
Comments:																				
Source: RS Means Square Foot Costs Manual																				
Year: 2008 Section: 10 Page: 344 Line: C1020-102-2600																				
Comments: Multiplier represents hardware allowance.																				
Source: RS Means Square Foot Costs Manual																				

Reconstruction Cost Worksheet																	For This Improvement:				4/29/2009					
Job#	04-202		Property#	1		Client	JOHN J. COYLE, IV - DEMONSTRATION										Property	5 HORNE DRIVE		Gross Sq Ft	36,940	Used in Calcs	Sheet	16		
																		Rentable Sq Ft	36,940			Page	16			
																		Production Bbl								
																		Storage Bbl								
Imp#:			101			Industrial Building																				
Sect	Seq	Type	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Height Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge UseLife	PhyDet	PhyDep Cost	WghtEffAge WghtUsLf	Wght%RCN WghtPhyDet										
BLDGD 06.510 D 0 4,300.00 SF																										
Description: INTERIOR FLOOR FINISH: VINYL COMPOSITION TILE; MINIMUM																										

Reconstruction Cost Worksheet													For This Improvement:		4/29/2009	
Job# 04-202	Property# 1	JOHN J. COYLE, IV - DEMONSTRATION										Gross Sq Ft	Used in Calcs	Sheet 17		
Client	Property	5 HORNE DRIVE										Rentable Sq Ft		Page 17		
Address	Imp#:	101	Industrial Building													
Sect	Seq	Type	Qty	Height	Multiplier	Quality Rating	Unit Price	Stry Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge UseLife	PhyDet	PhyDep Cost	WghtEffAge WghtUSLf WghtPhyDet (Weighted by This Improvement)	
BLDG 06.518	D		0	126.00	SF		\$9.40	1.00	1.00	2.0000	\$3,750	2,000 yr			0.002 yr 0.08 %	
Description: INTERIOR STAIR TREAD FINISH: RUBBER																
Comments: Multiplier represents landing areas.																
Source: RS Means Building Construction Cost Data Manual Year: 2008 Section: 09 Page: 287 Line: 096513.23-1200																
BLDG 06.602	D		0	11,400.00	SF		\$2.64	1.00	1.00	1.0000	\$47,648	2,000 yr			0.021 yr 1.04 %	
Description: INTERIOR CEILING FINISHES: PAINTED METAL GRID; MINERAL FIBER TILE ACOUSTICAL SYSTEM																
Comments:																
Source: RS Means Square Foot Costs Manual Year: 2008 Section: 10 Page: 354 Line: C3030-110-\$800																
BLDG 06.710	D		0	8.00	LF		\$261.50	1.00	1.00	1.0000	\$3,312	2,000 yr			0.001 yr 0.07 %	
Description: INTERIOR MILLWORK: BASE CABINETS; HARDWOOD																
Comments:																
Source: RS Means Square Foot Costs Manual Year: 2008 Section: 10 Page: 346 Line: C1030-830-0110																
BLDG 06.715	D		0	8.00	LF		\$203.00	1.00	1.00	1.0000	\$2,571	2,000 yr			0.001 yr 0.06 %	
Description: INTERIOR MILLWORK: WALL CABINETS; HARDWOOD																
Comments:																
Source: RS Means Square Foot Costs Manual Year: 2008 Section: 10 Page: 346 Line: C1030-830-0130																

Reconstruction Cost Worksheet													For This Improvement:			4/29/2009							
Job#	Property#	Client	Property	Address	Imp#	Industrial Building	Sect	Seq	Typ	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Hght Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge UseLife	PhyDet	PhyDep Cost	WghtEFAge WghtUsLfe	Wght%RCN WghtPhyDet
04-202	1	JOHN J. COYLE, IV - DEMONSTRATION		5 HORNE DRIVE	101																		

Reconstruction Cost Worksheet													For This Improvement:			4/29/2009						
Job#	Property#	Client	Property	Address	Imp#:	Sect	Seq	Typ	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Hght Adj	#Stry Adj	Curr Mult	TotCost RndCost	EFage Uselife	PhyDet	PhyDep Cost	WghtEFAge WghtUsLf	Wght%RCN WghtPhyDet
04-202	1	JOHN J. COYLE, IV - DEMONSTRATION		5 HORNE DRIVE	101																	

Job# 04-202
Property# 1
Client JOHN J. COYLE, IV - DEMONSTRATION
Property
Address 5 HORNE DRIVE

Imp#: 101 Industrial Building

Reconstruction Cost Worksheet

For This Improvement:
Gross Sq Ft 36,940
Rentable Sq Ft 36,940
Production Bbl
Storage Bbl

4/29/2009
Sheet 20
Page 20

Sect	Seq	Type	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Hght Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge Uselife	PhyDet	PhyDep Cost	WghtUsL.f	Wght%RCN	
												PhyDetRate	(Weighted by This Improvement)				
BLDG	06.900	D		0	180.00 SF		\$1.26	1.00	1.00	1.0000	\$359	2.000 yr	\$100	\$300	0.000 yr	0.01 %	
Description: INTERIOR WINDOW TREATMENTS: VINYL SHADES												\$400	10.000 yr			0.001 yr	0.00 %
												\$0.01 perSF	20.000 %				
Comments:																	
Source: RS Means Building Construction Cost Data Manual Year: 2008 Section: 12 Page: 370 Line: 122413.10-1500																	
BLDG	06.990	S									\$508,792		\$152,600	\$356,100	0.581 yr	11.07 %	
Description: SUBTOTAL - INTERIOR CONSTRUCTION												\$508,700		1.779 yr	3.32 %		
												\$13.77 perSF					
Comments:																	
BLDG 07.000 H																	
Description: CONVEYING SYSTEMS																	
Comments:																	
BLDG	07.050	D		0	0.00		\$0.00	1.00	1.00	1.0000	\$0	0.000 yr	\$0	\$0	0.000 yr	0.00 %	
Description: NONE												\$0	0.000 yr			0.000 yr	0.00 %
												\$0.00 perSF	0.000 %				
Comments:																	
Source:																	

Reconstruction Cost Worksheet													4/29/2009				
Job# 04-202													Sheet 21				
Property# 1													Used in Calcs	Page 21			
Client JOHN J. COYLE, IV - DEMONSTRATION													Gross Sq Ft 36,940				
Property													Rentable Sq Ft 36,940				
Address 5 HORNE DRIVE													Production Bbl				
Imp#: 101 Industrial Building													Storage Bbl				
Sect	Seq	Type	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Height Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge UsedLife	PhyDep Cost	PhyDet	WghtEffAge WghtUsLf	WghtPhyDet WghtPhyDet	
BLDG 07,990 S																	
Description: SUBTOTAL - CONVEYING SYSTEMS																	
Comments:																	

BLDG 08,000 H																	
Description: MECHANICAL - PLUMBING																	
Comments:																	

BLDG 08,200 D		0		800.00 LF		\$13.20		1.00		1.00		1.0000		\$16,719		20,000 yr	
Description: PLUMBING: WATER DISTRIBUTION; 3/4" PIPING														\$16,700		30,000 yr	
														\$0.45 perSF		66,667 %	
														\$11,100		\$5,600	
																0.073 yr	
																0.109 yr	
																0.36 %	
																0.24 %	
Comments:																	
Source: RS Means Square Foot Costs Manual																	
BLDG 08,300 D		0		400.00 LF		\$30.40		1.00		1.00		1.0000		\$19,252		20,000 yr	
Description: PLUMBING: SANITARY SEWER														\$19,300		40,000 yr	
														\$0.52 perSF		50,000 %	
														\$9,600		\$9,700	
																0.084 yr	
																0.168 yr	
																0.42 %	
																0.21 %	
Comments:																	
Source: RS Means Square Foot Costs Manual																	

Reconstruction Cost Worksheet															For This Improvement:			4/29/2009			
Job#	Property#	Client	Property Address	Imp#:	Sect	Seq	Type	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Hght Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge UseLife	PhyDet	PhyDep Cost	WghtEFFAge WghtUSLF	Wght%RCN WghtPhyDet
04-202	I	JOHN J. COYLE, IV - DEMONSTRATION	5 HORNE DRIVE	101																	
				Industrial Building																	

Reconstruction Cost Worksheet														For This Improvement:				4/29/2009			
Job# 04-202 Property# 1 Client JOHN J. COYLE, IV - DEMONSTRATION Property Address 5 HORNE DRIVE Imp#: 101 Industrial Building														Gross Sq Ft		Used in Calcs		Sheet 23			
														36,940				Page 23			
														Rentable Sq Ft							
														Production Bbl							
Storage Bbl																					
Sect	Seq	Typ	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Hght Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge UseLife	PhyDet	PhyDep Cost	WghtEffAge WghtUsL.f	Wght%RCN WghtPhyDet					
(Weighted by This Improvement)																					
BLDG 08.815 D 0 5.00 Each \$690.00 1.00 1.00 1.0000 \$5,462 2,000 yr 0.002 yr 0.12 %																					
Description: PLUMBING: WATER HEATER; ELECTRIC \$5,500 10,000 yr 0.012 yr 0.02 %																					
\$0.15 perSF 20,000 %																					
Comments:																					
Source: RS Means Building Construction Cost Data Manual Year: 2008 Section: 21 Page: 442 Line: 223430.13-1100																					
BLDG 08.825 D 0 1.00 Each \$1,340.00 1.00 1.00 1.2000 \$2,546 2,000 yr 0.001 yr 0.06 %																					
Description: PLUMBING; BREAK SINK; ASSEMBLIES; STAINLESS BOWL; FAUCET \$2,500 20,000 yr 0.011 yr 0.01 %																					
\$0.07 perSF 10,000 %																					
Comments:																					
Source: RS Means Building Construction Cost Data Manual Year: 2008 Section: 20 Page: 364 Line: D2010-410-1880																					
BLDG 08.990 S \$99,692 0.402 yr 2.17 %																					
Description: SUBTOTAL - MECHANICAL - PLUMBING \$99,700 \$59,200 \$40,500 0.664 yr 1.29 %																					
\$2.70 perSF																					
Comments:																					
BLDG 09.000 H																					
Description: MECHANICAL - HEATING AND AIR CONDITIONING																					
Comments:																					

Reconstruction Cost Worksheet													4/29/2009	
Job# 04-202													Sheet 24	
Property# 1													Page 24	
Client JOHN J. COYLE, IV - DEMONSTRATION													Used in Calcs	
Property Address 5 HORNE DRIVE														
Imp#: 101 Industrial Building														
Sect Seq Typ Multiplier Height Qty	Quality Rating	Unit Price	Stry Hght Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge UseLife	PhyDet	PhyDep Cost	WghtEffAge WghtUsLf	Wght%RCN WghtPhyDet			
													(Weighted by This Improvement)	
BLDG 09 100 D 0 11,400.00 SF													0.296 yr	2.96 %
Description: HVAC SYSTEMS: EXTERIOR BUILDING MOUNTED; MULTIZONE; CONTROLS; DUCTWORK; DIFFUSERS													0.443 yr	1.97 %
													\$3.68 perSF	
Comments:														
Source: RS Means Square Foot Costs Manual Year: 2008 Section: 30 Page: 389 Line: D3050-150-3920														
BLDG 09 200 D 0 20.00 Each													0.165 yr	0.83 %
Description: HEAT ONLY; GAS-FIRED INFRA-RED UNIT HEATERS; SUSPENDED FROM THE UNDERSIDE OF CEILING DECK													0.207 yr	0.66 %
													\$7,600	
													\$1.03 perSF	
Comments:														
Source: RS Means Building Construction Cost Data Manual Year: 2008 Section: 23 Page: 487 Line: 238227.10-0240														
BLDG 09 900 D 0 750.00 LF													0.076 yr	0.38 %
Description: HVAC: NATURAL GAS; 1" PIPING													0.153 yr	0.19 %
													\$8,700	
													\$0.47 perSF	
Comments:														
Source: RS Means Square Foot Costs Manual Year: 2008 Section: 30 Page: 377 Line: D2090-819-4030														
BLDG 09 990 S													0.537 yr	4.17 %
Description: SUBTOTAL - MECHANICAL - HEATING AND AIR CONDITIONING													0.803 yr	2.82 %
													\$61,600	
													\$5.18 perSF	
Comments:														

Reconstruction Cost Worksheet													For This Improvement:		4/29/2009	
Job#	04-202												Gross Sq Ft	Used in Cals	Sheet	25
Property#	1												Rentable Sq Ft		Page	25
Client	JOHN J. COYLE, IV - DEMONSTRATION												Production Bbl			
Property													Storage Bbl			
Address	5 HORNE DRIVE															
Imp#:	101	Industrial Building														
Sect	Seq	Type	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Height Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge UseLife	PhyDet	PhyDep Cost	WghtEffAge WghtUsLf	WghtPhyDet (Weighted by This Improvement)
BLDG 10.000 H																
Description: MECHANICAL - VENTILATING																
Comments:																

BLDG 10.110 D		0	3.00	Each			\$630.00	1.00	1.00	1.3135	\$3,930	20,000 yr			0.017 yr	0.09 %
Description: EXHAUST FAN: ASSEMBLIES; WALL MOUNTED; IN-LINE; DIRECT DRIVE																
Comments:																
Source: RS Means Building Construction Cost Data Manual Year: 2008 Section: 23 Page: 469 Line: 233416.10-8580																
BLDG 10.115 D		0	1.00	Each			\$4,375.00	1.00	1.00	1.2500	\$8,658	20,000 yr			0.038 yr	0.19 %
Description: EXHAUST FAN: UTILITY SET; EXTERIOR WALL MOUNTED; SUPPORTED BY TREATED LUMBER FRAMING																
Comments: Multiplier represents treated lumber support framing and metal canopy allowance.																
Source: RS Means Building Construction Cost Data Manual Year: 2008 Section: 23 Page: 469 Line: 233416.10-5080																
BLDG 10.120 D		0	6.00	Each			\$148.00	1.00	1.00	1.0000	\$1,406	2,000 yr			0.001 yr	0.03 %
Description: EXHAUST FAN: CEILING MOUNTED																
Comments:																
Source: RS Means Building Construction Cost Data Manual Year: 2008 Section: 23 Page: 470 Line: 233414.10-6670																

Reconstruction Cost Worksheet														4/29/2009			
Job#	04-202													Sheet	26		
Property#	1													Page	26		
Client	JOHN J. COYLE, IV - DEMONSTRATION																
Property																	
Address	5 HORNE DRIVE																
Imp#:	101 Industrial Building																
Sect	Seq	Type	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Height Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge UseLife	PhyDet	PhyDep Cost	WghtEffAge WghtUsL.f	Wght%RCN WghtPhyDet	
(Weighted by This Improvement)																	
BLDG 10.990 S														0.056 yr	0.30 %		
Description: SUBTOTAL - VENTILATING												\$10,100	\$3,900	0.074 yr	0.22 %		
Comments:																	
BLDG 11.000 H																	
Description: MECHANICAL - FIRE PROTECTION																	
Comments:																	
BLDG 11.990 D														2.000 yr	0.001 yr	0.04 %	
Description: FIRE EXTINGUISHER: 10LB; DRY CHEMICAL; PRESSURIZED; CERTIFIED												\$700	\$1,000	5.000 yr	0.002 yr	0.02 %	
														\$0.05 persF	40.000 %		
Comments:																	
Source: RS Means Building Construction Cost Data Manual																	
Year: 2008 Section: 10 Page: 328 Line: 104413.53-1080																	
BLDG 11.990 S																0.001 yr	0.04 %
Description: SUBTOTAL - MECHANICAL - FIRE PROTECTION												\$700	\$1,000		0.002 yr	0.02 %	
Comments:																	

Job#	04-202	Reconstruction Cost Worksheet										For This Improvement:		4/29/2009	
Property#	1											Gross Sq Ft	36,940	Used in Calcs	Sheet 27
Client	JOHN J. COYLE, IV - DEMONSTRATION											Rentable Sq Ft	36,940		Page 27
Property												Production Bbl			
Address	5 HORNE DRIVE											Storage Bbl			
Imp#:	101	Industrial Building													
Sect	Seq	Typ	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Hight Adj	#Stry Adj	Curr Mult	TotCost RndCost	EFAGE UseLife PhyDetRate	PhyDet	PhyDep Cost	WghtEFAGE WghtUsL.f WghtPhyDet (Weighted by This Improvement)
BLDG 12.000 H															
Description: ELECTRICAL SYSTEM															
Comments:															
BLDG 12.100 D	0	2.00	Each				\$11,500.00	1.00	1.00	1.0000	\$36,414	35,000 yr			0.277 yr 0.79 %
Description: ELECTRICAL SERVICE; MAIN SERVICE; 600 AMP; PANEL BOARDS; FEEDERS															
											\$36,400	40,000 yr	\$31,900	\$4,500	0.317 yr 0.69 %
											\$0.99 perSF	87,500 %			
Comments:															
Source: RS Means Square Foot Costs Manual															
							Year: 2008	Section: 50	Page: 415	Line: D5010-120-0360					
BLDG 12.110 D	0	2.00	Each				\$17,200.00	1.00	1.00	1.0000	\$54,462	35,000 yr			0.415 yr 1.19 %
Description: ELECTRICAL SERVICE; MAIN SERVICE; 600 AMP; PANEL BOARDS; FEEDERS															
											\$54,500	40,000 yr	\$47,700	\$6,800	0.474 yr 1.04 %
											\$1.48 perSF	87,500 %			
Comments:															
Source: RS Means Square Foot Costs Manual															
							Year: 2008	Section: 50	Page: 416	Line: D5010-240-0240					
BLDG 12.310 D	0	11,400.00	SF				\$4.60	1.00	1.00	1.0000	\$83,023	10,000 yr			0.181 yr 1.81 %
Description: ELECTRICAL; LIGHTING AND WIRING; RECESSED FLUORESCENT FIXTURES															
											\$83,000	20,000 yr	\$41,500	\$41,500	0.361 yr 0.90 %
											\$2.25 perSF	50,000 %			
Comments:															
Source: RS Means Square Foot Costs Manual															
							Year: 2008	Section: 50	Page: 421	Line: D5020-210-0240					

Job#	04-202	Reconstruction Cost Worksheet										For This Improvement:		4/29/2009	
Property#	I											Gross Sq Ft	36,940	Used in Calcs	Sheet 29
Client	JOHN J. COYLE, IV - DEMONSTRATION											Rentable Sq Ft	36,940		Page 29
Property												Production Bbl			
Address	5 HORNE DRIVE											Storage Bbl			
Imp#:	101	Industrial Building													
Sect	Seq	Typ	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Hght Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge UseLife	PhyDet	PhyDep Cost	WghtEffAge WghtUsLf WghtPhyDet (Weighted by This Improvement)
BLDG 12.410 D	0				36,940.00 SF		\$0.28	1.00	1.00	2.0000	\$32,751	10,000 yr	\$16,400	\$16,400	0.071 yr 0.71 %
Description: ELECTRICAL: HEATING; COOLING; VENTILATION EQUIPMENT/POWER															
Comments:															
Source: RS Means Square Foot Costs Manual Year: 2008 Section: 50 Page: 418 Line: D5020-140-0200															
BLDG 12.615 D	0				6.00 Each		\$440.00	1.00	1.00	1.0000	\$4,180	18,000 yr	\$3,800	\$400	0.016 yr 0.09 %
Description: ELECTRICAL: EXTERIOR LIGHTING SURFACE MOUNTED FIXTURE ALLOWANCE															
Comments:															
Source: RS Means Building Construction Cost Data Manual Year: 2008 Section: 26 Page: 521 Line: 265623.10-1150															
BLDG 12.990 S											\$454,849		\$257,500	\$197,500	1.465 yr 9.90 %
Description: SUBTOTAL - ELECTRICAL SYSTEM															
Comments:															
Source: RS Means Building Construction Cost Data Manual Year: 2008 Section: 26 Page: 521 Line: 265623.10-1150															
BLDG 13.000 H											\$455,000		\$257,500	\$197,500	2.374 yr 5.60 %
Description: SPECIAL CONSTRUCTION															
Comments:															

Reconstruction Cost Worksheet															For This Improvement:			4/29/2009	
Job# 04-202 Property# 1 Client JOHN J. COYLE, IV - DEMONSTRATION Property Address 5 HORNE DRIVE Imp#: 101 Industrial Building															Gross Sq Ft		Used in Calcs		Sheet 28
															36,940		36,940		Page 28
															Rentable Sq Ft		Production Bbl		
															Storage Bbl				
Sect	Seq	Typ	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Hght Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge Used life	PhyDet	PhyDep Cost	WghtEffAge WghtUsLf	WghtPhyDet (Weighted by This Improvement)			
BLDG 12.320 D 0 25,540.00 SF																			
Description: ELECTRICAL: INTERIOR LIGHTING; WAREHOUSE																			
Comments:																			
Source: RS Means Square Foot Costs Manual Year: 2008 Section: 50 Page: 422 Line: D5020-226-0320																			
BLDG 12.323 D 0 11,400.00 SF																			
Description: ELECTRICAL: LIGHT SWITCHES																			
Comments:																			
Source: RS Means Square Foot Costs Manual Year: 2008 Section: 50 Page: 418 Line: D5020-130-0200																			
BLDG 12.325 D 0 36,940.00 SF																			
Description: ELECTRICAL: MISCELLANEOUS; 1 WATTS PER S.F.; EXIT / EMERGENCY LIGHTING																			
Comments:																			
Source: RS Means Square Foot Costs Manual Year: 2008 Section: 50 Page: 418 Line: D5020-135-0280																			
BLDG 12.400 D 0 36,940.00 SF																			
Description: ELECTRICAL: RECEPTACLES; WIRING; TRANSFORMER; 5 WATTS PER S.F.																			
Comments:																			
Source: RS Means Square Foot Costs Manual Year: 2008 Section: 50 Page: 417 Line: D5020-110-0320																			

Reconstruction Cost Worksheet														For This Improvement:			4/29/2009		
Job# 04-202 Property# 1 Client JOHN J. COYLE, IV - DEMONSTRATION Property Address 5 HORNE DRIVE Imp#: 101 Industrial Building														Gross Sq Ft		Used in Calcs		Sheet	30
														36,940		36,940		Page	30
														Rentable Sq Ft		Production Bbl			
														Storage Bbl					
Sect	Seq	Typ	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Hght Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge UsedLife	PhyDet	PhyDep Cost	WghtEffAge WghtUsL.f	Wght%RCN WghtPhyDet			
Description: BLDG 13.902 D 0 1.00 LS \$1,500.00 1.00 1.00 1.0000 \$2,375 2.000 yr \$500 \$1,900 0.001 yr 0.05 %																			
Description: SIGNAGE: ALLOWANCE \$2,400 10.000 yr \$0.06 perSF 20.000 % 0.005 yr 0.01 %																			
Comments: Source: Year: 2008 Section: Page: Line:																			
Description: BLDG 13.904 D 0 1.00 Each \$46,100.00 1.00 1.00 1.0000 \$72,986 35.000 yr \$56,800 \$16,200 0.556 yr 1.59 %																			
Description: OVERHEAD CRANE: 5 TON CAPACITY; ASSEMBLIES; BRIDGE \$73,000 45.000 yr \$1.98 perSF 77.778 % 0.715 yr 1.24 %																			
Comments: Source: RS Means Building Construction Cost Data Manual Year: 2008 Section: 41 Page: 610 Line: 412213.13-0375																			
Description: BLDG 13.906 D 0 1.00 Each \$78,000.00 1.00 1.00 1.0000 \$123,490 35.000 yr \$96,000 \$27,500 0.940 yr 2.69 %																			
Description: OVERHEAD CRANE: 15 TON CAPACITY; ASSEMBLIES; BRIDGE \$123,500 45.000 yr \$3.34 perSF 77.778 % 1.209 yr 2.09 %																			
Comments: Source: RS Means Building Construction Cost Data Manual Year: 2008 Section: 41 Page: 610 Line: 412213.13-0450																			
Description: BLDG 13.908 D 0 1.00 Each \$85,500.00 1.00 1.00 1.0000 \$135,364 35.000 yr \$105,300 \$30,100 1.031 yr 2.95 %																			
Description: OVERHEAD CRANE: 25 TON CAPACITY; ASSEMBLIES; BRIDGE \$135,400 45.000 yr \$3.67 perSF 77.778 % 1.325 yr 2.29 %																			
Comments: Unit price adjusted according to weight capacity.																			
Source: RS Means Building Construction Cost Data Manual Year: 2008 Section: 41 Page: 610 Line: 412213.13-0450																			

Reconstruction Cost Worksheet														For This Improvement:			4/29/2009						
Job#	Property#	Client	Property	Address	Imp#	Sect	Seq	Type	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Hight Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge UseLife	PhyDet	PhyDep Cost	WghtUsLf	Wght%RCN	WghtPhyDet
04-202	1	JOHN J. COYLE, IV - DEMONSTRATION		5 HORNE DRIVE	101																		
																				</			

Reconstruction Cost Worksheet														For This Improvement:		4/29/2009	
Job#	Property#	Client	Property	Address					Gross Sq Ft	Used in Calcs	Sheet	32					
04-202	I	JOHN J. COYLE, IV - DEMONSTRATION		5 HORNE DRIVE					36,940		Page	32					
					Renable Sq Ft	Production Bbl											
					Storage Bbl												
Imp#:	Sect	Seq	Type	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Hght Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge UseLife	PhyDet	PhyDep Cost	WghtEffAge WghtUsLf WghtPhyDet (Weighted by This Improvement)	RCN WghtPhyDet
BLDG 14.000 H																	
Description: SITEWORK WITHIN BUILDING PERIMETER																	
Comments:																	
BLDG 14.900 D 0 400.00 LF \$1.30 1.00 1.00 1.0000 \$823 20,000 yr 0.004 yr 0.02 %																	
Description: PIPE BEDDING: GRAVEL \$800 40,000 yr 0.007 yr 0.01 %																	
\$0.02 perSF 50,000 %																	
Comments:																	
Source: RS Means Assemblies Cost Data Manual Year: 2008 Section: 10 Page: 446 Line: G1030-815-1440																	
BLDG 14.902 D 0 400.00 CY \$6.15 1.00 1.00 1.0000 \$3,895 20,000 yr 0.017 yr 0.09 %																	
Description: PIPE EXCAVATION / BACKFILL: \$3,900 40,000 yr \$1,900 \$2,000 0.034 yr 0.04 %																	
\$0.11 perSF 50,000 %																	
Comments:																	
Source: RS Means Building Construction Cost Data Manual Year: 2008 Section: 31 Page: 535 Line: 312316.13-0060																	
BLDG 14.990 S \$4,718																	
Description: SUBTOTAL - SITEWORK WITHIN BUILDING PERIMETER \$2,300 \$2,400 0.021 yr 0.10 %																	
\$0.13 perSF 0.041 yr 0.05 %																	
Comments:																	

Job# 04-202

Property# 1

Client JOHN J. COYLE, IV - DEMONSTRATION

Property Address 5 HORNE DRIVE

Imp#: OVERA Overall Land Improvements

Sect	Seq	Typ	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Hght Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge Uselife	PhyDet	PhyDep Cost	WghtEffAge WghtUselife	Wght%RCN WghtPhyDet
MULT	00.100	D	1.5832													

Description: COMPOSITE FACTOR

Comments: LAND

MULT 00.990 T 1.5832

Description: TOTAL FACTOR

Comments: LAND

BLDG 20.050 H

Description: LAND IMPROVEMENTS - OVERALL SITE PREPARATION

Comments:

BLDG 21.200 D	0	1.00	LS				\$2,500.00	1.00	1.00	1.0000	\$3,958	39,000 yr			1.816 yr	4.66 %
Description: SOIL EROSION CONTROLS DURING CONSTRUCTION																
											\$4,000	80,000 yr	\$1,900	\$2,100	3.725 yr	2.24 %
											\$0.00 perSF	48,750 %				

Comments: LUMP SUM ALLOWANCE FOR INSTALLATION AND MAINTENANCE

Source: Year: 2008 Section: Page: Line:

For This Improvement:

Gross Sq Ft	Used in Calcs
Rentable Sq Ft	
Production Bbl	
Storage Bbl	

4/29/2009 Sheet 1 Page 34

Reconstruction Cost Worksheet

Addendum Page 195

Job# 04-202

Property# 1

Client JOHN J. COYLE, IV - DEMONSTRATION

Property Address 5 HORNE DRIVE

Imp#: OVERA Overall Land Improvements

Sect	Seq	Typ	Multiplier	Height	Qty	Quality Rating	Unit Price	#Stry Hght Adj	Curr Mult	TotCost RndCost	EffAge UseLife	PhyDet	PhyDep Cost	WghtEffAge WghtUsL.f	Wght%RCN WghtPhyDet
															(Weighted by This Improvement)

For This Improvement:

Gross Sq Ft	Used in Cales
Rentable Sq Ft	
Production Bbl	
Storage Bbl	

4/29/2009

Sheet 3

Page 36

Reconstruction Cost Worksheet

BLDG 29,990 T

Description: TOTAL - LAND IMPROVEMENTS - OVERALL SITE PREPARATION

TotCost \$84,998

RndCost \$85,000

\$0.00 perSF

35.185 yr

79.998 yr

100.00 %

44.00 %

Comments:

Job# 04-202

Property# 1

Client JOHN J. COYLE, IV - DEMONSTRATION

Property Address 5 HORNE DRIVE

Reconstruction Cost Worksheet

For This Improvement:

Gross Sq Ft

Used in Cales

Rentable Sq Ft

Production Bbl

Storage Bbl

4/29/2009

Sheet 1

Page 37

Impl#: STRUC Above and Below Ground Improvements

Sect	Seq	Typ	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Hght Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge UseLife	PhyDet	PhyDep Cost	WghtEffAge WghtUsL.f	Wght%RCN WghtPhyDet
MULT 00.100 D 1.5832																
Description: COMPOSITE FACTOR																
Comments: LAND																
MULT 00.990 T 1.5832																
Description: TOTAL FACTOR																
Comments: LAND																
BLDG 30.100 D 0 750.00 LF																
Description: PERIMETER FENCING: GALVANIZED STEEL																
\$0.00 perSF																
\$36,216																
\$36,200																
\$33,600																
\$2,600																
26,000 yr																
28,000 yr																
92.857 %																
2.421 yr																
2.607 yr																
9.31 %																
8.64 %																
Comments:																
Source: RS Means Building Construction Cost Data Manual																
BLDG 31.000 H																
Description: GATES:																
Comments:																

Reconstruction Cost Worksheet															For This Improvement:			4/29/2009		
Job#	Property#	Client	Property	Address											Gross Sq Ft	Used in Cals	Sheet			
04-202	1	JOHN J. COYLE, IV - DEMONSTRATION		5 HORNE DRIVE											Rentable Sq Ft		2			
															Production Bbl		Page			
															Storage Bbl		38			
Imp#:	STRUC	Above and Below Ground Improvements																		
Sect	Seq	Typ	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Hght Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge UseLife	PhyDet	PhyDep Cost	WghtEffAge WghtUsLft WghtPhyDet (Weighted by This Improvement)					
BLDG	31.310	D	0	3.00	Each		\$1,775.00	1.00	1.00	1.5000	\$12,646	18,000 yr			0.585 yr 3.25 %					
Description: GATES: SINGLE; SWING TYPE; VEHICLE																				
Comments: Multiplier represents ornamental painted metal.																				
Source: RS Means Building Construction Cost Data Manual																				
BLDG	31.990	S									\$12,646				0.585 yr 3.25 %					
Description: SUBTOTAL-GATES																				
Comments:																				
BLDG	32.000	H									\$12,600		\$11,400	\$1,200	0.650 yr 2.93 %					
Description: PAVING																				
Comments:																				
BLDG	32.200	D	0	30,000.00	SF		\$2.82	1.00	1.00	1.0000	\$133,939	23,000 yr			7.921 yr 34.44 %					
Description: ASPHALT PAVING: 6" GRAVEL BASE 3/4" STONE, 2" BINDER COARSE, 1" WEARING COARSE.																				
Comments:																				
Source: RS Means Building Construction Cost Data Manual																				
Year: 2008 Section: 32 Page: 566 Line: 321216.14-0020																				

Reconstruction Cost Worksheet															For This Improvement:			4/29/2009	
															Gross Sq Ft		Used in Calcs		Sheet 3
															Rentable Sq Ft				Page 39
															Production Bbl				
															Storage Bbl				

Reconstruction Cost Worksheet															For This Improvement:			4/29/2009	
Job#	Property#	Client	Property	Address											Gross Sq Ft	Used in Cals	Sheet		
04-202	1	JOHN J. COYLE, IV - DEMONSTRATION		5 HORNE DRIVE											Rentable Sq Ft		4		
															Production Bbl		Page		
															Storage Bbl		40		
Imp#:	STRUC	Above and Below Ground Improvements																	
Sect	Seq	Type	Multiplier	Height	Qty	Quality Rating	Unit Price	Qty Adj	Qty Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge UsedLife	PhyDet	PhyDep Cost	WghtEffAge WghtUsLf	Wght%RCN WghtPhyDet		
(Weighted by This Improvement)																			
BLDG	35.050	D	0	0.00			\$0.00	1.00	1.00	1.00	1.0000	\$0	0.000 yr			\$0	0.000 yr	0.00 %	
Description: SIGNAGE: NONE; SEE BUILDING, SPECIAL CONSTRUCTION																			
\$0.00 perSF 0.000 %																			
Comments:																			
Source:																			
BLDG	36.100	D	0	36,940.00	SF		\$1.00	1.00	1.00	1.00	1.3440	\$78,602	18,000 yr			\$7,900	3,638 yr	20.21 %	
Description: LANDSCAPING: BUILDING PERIMETER; MEDIUM VISUAL IMPACT; IRRIGATION																			
\$0.00 perSF 90,000 %																			
Comments: Multiplier represents trending to 2008 Current Multiplier.																			
Source: Richardson Construction Estimating Standards																			
BLDG	37.050	D	0	0.00			\$0.00	1.00	1.00	1.00	1.0000	\$0	0.000 yr			\$0	0.000 yr	0.00 %	
Description: YARD LIGHTING SYSTEMS: NONE																			
\$0.00 perSF 0.000 %																			
Comments:																			
Source:																			
BLDG	38.100	D	0	1.00	Each		\$4,775.00	1.00	1.00	1.00	1.0000	\$7,560	28,000 yr			\$500	0.544 yr	1.94 %	
Description: FLAGPOLES: ALUMINUM; INCLUDES BASE; FOUNDATION; EXCAVATION																			
\$0.00 perSF 93,333 %																			
Comments: Includes concrete foundation and excavation. (107516.10-7600)																			
Source: RS Means Building Construction Cost Data Manual																			
Year: 2008 Section: 10 Page: 334 Line: 107516.10-0500																			

Reconstruction Cost Worksheet												For This Improvement:			4/29/2009	
Job# 04-202												Gross Sq Ft	Used in Cals		Sheet 5	
Property# 1												Rentable Sq Ft			Page 41	
Client JOHN J. COYLE, IV - DEMONSTRATION												Production Bbl				
Property												Storage Bbl				
Address 5 HORNE DRIVE																
Impl#: STRUC: Above and Below Ground Improvements																
Sect	Seq	Typ	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Hght Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge Used life	PhyDet	PhyDep Cost	WghtEffAge WghtUsLF WghtPhyDet (Weighted by This Improvement)	
BLDG 39.100	D		0	2.00	Each		\$450.00	1.00	1.00	1.0000	\$1,425 \$1,400 \$0.00 perSF	18,000 yr 20,000 yr 90,000 %	\$1,300	\$100	0.066 yr 0.073 yr 0.37 % 0.33 %	
Description: BOLLARDS: STEEL PIPE FILLED WITH CONCRETE																
Comments:																
Source: RS Means Building Construction Cost Data Manual Year: 2008 Section: 32 Page: 569 Line: 321713.13-1300																
BLDG 40.010	D		0	40.00	LF		\$50.00	1.00	1.00	1.0000	\$3,166 \$3,200 \$0.00 perSF	18,000 yr 20,000 yr 90,000 %	\$2,800	\$400	0.147 yr 0.163 yr 0.81 % 0.72 %	
Description: GUIDERAILS: ASSEMBLIES ALLOWANCE; STEEL FABRICATED AND INSTALLED IN CONCRETE BASE																
Comments:																
Source: RS Means Building Construction Cost Data Manual Year: 2008 Section: 34 Page: 604 Line: 347113.26-0900																
BLDG 42.100	D		0	60.00	LF		\$50.50	1.00	1.00	1.0000	\$4,797 \$4,800 \$0.00 perSF	39,000 yr 45,000 yr 86,667 %	\$4,200	\$600	0.481 yr 0.555 yr 1.23 % 1.08 %	
Description: HANDRAILS: ALUMINUM																
Comments:																
Source: RS Means Building Construction Cost Data Manual Year: 2008 Section: 05 Page: 135 Line: 055213.50-0030																
BLDG 43.100	D		0	450.00	SF		\$9.75	1.00	1.00	1.0000	\$6,946 \$6,900 \$0.00 perSF	39,000 yr 45,000 yr 86,667 %	\$6,000	\$900	0.697 yr 0.804 yr 1.79 % 1.54 %	
Description: STAIRS: CONCRETE																
Comments:																
Source: Marshall and Swift Cost Estimating Manual Year: 2008 Section: 03 Page: 63 Line: 033053.40-7050																

Job# 04-202

Property# 1

Client JOHN J. COYLE, IV - DEMONSTRATION

Property Address 5 HORNE DRIVE

Reconstruction Cost Worksheet

For This Improvement:
Gross Sq Ft
Rentable Sq Ft
Production Bbl
Storage Bbl

Used in Calcs
Sheet 6
Page 42

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Imp#: STRUC Above and Below Ground Improvements

Sect	Seq	Typ	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Hight Adj	#Stry Adj	Curr Mult	TotCost RndCost	EFtAge Uselife PhyDetRate	PhyDet	PhyDep Cost	WghtEFtAge WghtUselife WghtPhyDet (Weighted by This Improvement)
BLDG 44.050	D		0	0.00			\$0.00	1.00	1.00	1.0000	\$0	0.000 yr	\$0	\$0	0.000 yr 0.00 %
Description: SURVEILLANCE SYSTEMS: NONE															

Comments:

Source:

Year: Section: Page: Line:

BLDG 48.000 H | | | | | | | | | | | | | | || Description: RETAINING WALLS | | | | | | | | | | | | | | | |

Comments:

Source:

Year: Section: Page: Line:

BLDG 48.100 D | | 0 | 15.00 | CY | | \$222.00 | 1.00 | 1.00 | 1.0000 | \$5,272 | 39,000 yr | \$4,600 | \$700 | 0.529 yr 1.36 % || Description: RETAINING WALL FOOTINGS: STRIP, REINFORCED CONCRETE | | | | | | | | | | | | | | | |
| \$5,300 45,000 yr | | | | | | | | | | | | | | | |
| \$0.00 perSF 86.667 % | | | | | | | | | | | | | | | |

Comments:

Source: RS Means Building Construction Cost Data Manual

Year: 2008 Section: 03 Page: 62 Line: 033053.40-3940

BLDG 48.105 D | | 0 | 1,500.00 | SF | | \$10.25 | 1.00 | 1.00 | 1.0000 | \$24,342 | 39,000 yr | \$21,100 | \$3,200 | 2.441 yr 6.26 % || Description: RETAINING WALL MASONRY: CMUBLOCK WALLS | | | | | | | | | | | | | | | |
| \$24,300 45,000 yr | | | | | | | | | | | | | | | |
| \$0.00 perSF 86.667 % | | | | | | | | | | | | | | | |

Comments:

Source: RS Means Building Construction Cost Data Manual

Year: 2008 Section: 04 Page: 88 Line: 042210.28-0600

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Reconstruction Cost Worksheet													For This Improvement:			4/29/2009	
													Gross Sq Ft	Used in Cates		Sheet 8	
													Rentable Sq Ft			Page 44	
													Production Bbl				
													Storage Bbl				

Job# 04-202
Property# 1
Client JOHN J. COYLE, IV - DEMONSTRATION
Property Address 5 HORNE DRIVE

Imp#: STRUC Above and Below Ground Improvements

Reconstruction Cost Worksheet

For This Improvement:
Gross Sq Ft
Rentable Sq Ft
Production Bbl
Storage Bbl

Used in Cales
Sheet 9
Page 45

Sect	Seq	Typ	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Hght Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge Uselife	PhyDet	PhyDep Cost	WghtERAge WghtUsLr	Wght%RCN WghtPhyDet
BLDG	52.050	D	0	0.00			\$0.00	1.00	1.00	1.0000	\$0	0.000 yr		\$0	0.000 yr	0.00 %
Description: PROCESS STEAM SYSTEM: NONE																
Comments:																
Source: Year: Section: Page: Line:																
BLDG	53.050	D	0	0.00			\$0.00	1.00	1.00	1.0000	\$0	0.000 yr		\$0	0.000 yr	0.00 %
Description: NON-PROCESS STEAM SYSTEM: NONE																
Comments:																
Source: Year: Section: Page: Line:																
BLDG	55.100	D	0	12.00	CY		\$345.00	1.00	1.00	1.0000	\$6,554	18,000 yr		\$700	0.303 yr	1.69 %
Description: VEHICLE RAMPS: REINFORCED CONCRETE WALLS ONLY; ASPHALT INCLUDED WITH PAVING; EXCAVATION INCLUDED WITH RETAINING WALLS																
Comments:																
Source: Year: Section: Page: Line:																
BLDG	56.050	D	0	0.00			\$0.00	1.00	1.00	1.0000	\$0	0.000 yr		\$0	0.000 yr	0.00 %
Description: PEDESTRIAN BRIDGES: NONE; INCLUDED WITH PLATFORMS																
Comments:																
Source: Year: Section: Page: Line:																

Job# 04-202

Property# 1

Client JOHN J. COYLE, IV - DEMONSTRATION

Property Address 5 HORNE DRIVE

Reconstruction Cost Worksheet

For This Improvement:

Gross Sq Ft

Used in Calcs

Rentable Sq Ft

Production Bbl

Storage Bbl

4/29/2009

Sheet 10

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Imp#: STRUC Above and Below Ground Improvements

Sect	Seq	Typ	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Hight Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge Uselife	PhyDet	PhyDep Cost	WghtEffAge WghtUsl.f	Wght%RCN WghtPhyDet
BLDG	58.050	D	0	0.00			\$0.00	1.00	1.00	1.0000	\$0	0.000 yr	\$0	\$0	0.000 yr	0.00 %
Description: RAILROAD IMPROVEMENTS: NONE																
Comments:																
Source: Year: Section: Page: Line:																
BLDG	61.050	D	0	0.00			\$0.00	1.00	1.00	1.0000	\$0	0.000 yr	\$0	\$0	0.000 yr	0.00 %
Description: TRUCK SCALES: NONE																
Comments:																
Source: Year: Section: Page: Line:																
BLDG	64.050	D	0	0.00			\$0.00	1.00	1.00	1.0000	\$0	0.000 yr	\$0	\$0	0.000 yr	0.00 %
Description: STORM WATER DRAINAGE SYSTEM: NONE																
Comments:																
Source: Year: Section: Page: Line:																
BLDG	65.050	D	0	0.00			\$0.00	1.00	1.00	1.0000	\$0	0.000 yr	\$0	\$0	0.000 yr	0.00 %
Description: WASTE WATER TREATMENT SYSTEM: NONE																
Comments:																
Source: Year: Section: Page: Line:																

Reconstruction Cost Worksheet													4/29/2009							
Job# 04-202													Used in Calcs		Sheet 11					
Property# 1													Gross Sq Ft		Page 47					
Client JOHN J. COYLE, IV - DEMONSTRATION													Rentable Sq Ft							
Property													Production Bbl							
Address 5 HORNE DRIVE													Storage Bbl							
Imp#: STRUC Above and Below Ground Improvements																				
Sect	Seq	Qty	Height	Multiplier	Unit Price	Qty	Quality Rating	Unit Price	Stry Height Adj	Stry Adj	#Stry Adj	Curr Mult	ToiCost RndCost	EffAge UsedLife	PhyDet	PhyDep Cost	WghtUsLf WghtPhyDet (Weighted by This Improvement)	WghtEffAge Wght%RCN		
BLDG 67.050	D		0	0.00	\$0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0000	\$0	\$0	\$0	\$0	0.000 yr	0.00 %		
Description: PROCESS AIR SYSTEM: NONE													\$0.00	perSF	0.000 %				0.000 yr	0.00 %
Comments:																				
Source:																				
BLDG 70.000 H																				
Description: DOMESTIC WATER SYSTEM:																				
Comments:																				
BLDG 70.100	D		0	100.00	L F	\$32.65	1.00	1.00	1.00	1.00	1.00	1.0000	\$5,169	\$4,900	\$300		0.505 yr	1.33 %		
Description: DOMESTIC WATER PIPING: 2" COPPER													\$5,200	40,000 yr					0.532 yr	1.26 %
													\$0.00	perSF	95,000 %					
Comments:																				
Source: RS Means Square Foot Costs Manual																				
BLDG 70.997	D		0	100.00	L F	\$2.85	1.00	1.00	1.00	1.00	1.00	1.0000	\$451	\$400	\$100		0.044 yr	0.12 %		
Description: DOMESTIC WATER PIPE BEDDING: GRAVEL													\$500	40,000 yr					0.046 yr	0.10 %
													\$0.00	perSF	95,000 %					
Comments:																				
Source: RS Means Square Foot Costs Manual																				
Year: 2008 Section: 20 Page: 376 Line: D2090-810-1340																				
Year: 2008 Section: 10 Page: 446 Line: G1030-815-1460																				

Job# 04-202

Property# 1

Client JOHN J. COYLE, IV - DEMONSTRATION

Property Address 5 HORNE DRIVE

Reconstruction Cost Worksheet

For This Improvement:

Gross Sq Ft

Used in Cals

Rentable Sq Ft

Production Bbl

Storage Bbl

4/29/2009

Sheet 12

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Imp#: STRUC Above and Below Ground Improvements

Sect	Seq	Typ	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Hght Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge UseLife	PhyDet	PhyDep Cost	WghtEffAge WghtUsL.f	Wght%RCN WghtPhyDet
BLDG 70.998	D		0		100.00	LF	\$3.84	1.00	1.00	1.0000	\$608	38,000 yr			0.059 yr	0.16 %
Description: DOMESTIC WATER SYSTEM EXCAVATION / BACKFILL																
Comments:																
Source: RS Means Square Foot Costs Manual																
Year: 2008																
Section: 10																
Page: 444																
Line: G1030-807-1330																
BLDG 70.999	S										\$6,228				0.608 yr	1.60 %
Description: SUBTOTAL- DOMESTIC WATER SYSTEMS																
Comments:																
Source:																
Year:																
Section:																
Page:																
Line:																
BLDG 71.050	D		0		0.00		\$0.00	1.00	1.00	1.0000	\$0	0.000 yr			0.000 yr	0.00 %
Description: PROCESS WATER SYSTEM: NONE																
Comments:																
Source:																
Year:																
Section:																
Page:																
Line:																
BLDG 72.000	H										\$0	0.000 yr			0.000 yr	0.00 %
Description: NATURAL GAS SERVICE																
Comments:																
Source:																
Year:																
Section:																
Page:																
Line:																

Reconstruction Cost Worksheet													For This Improvement:			4/29/2009					
Job# 04-202	Property# 1	Client JOHN J. COYLE, IV - DEMONSTRATION	Property Address 5 HORNE DRIVE	Imp#: STRUC Above and Below Ground Improvements									Gross Sq Ft		Used in Calcs		Sheet 13				
													Rentable Sq Ft						Page 49		
													Production Bbl								
													Storage Bbl								
Sect	Seq	Typ	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Hght Adj	#Stry Adj	Curr Mult	ToiCost RndCost	EffAge UseLife	PhyDet	PhyDep Cost	WghtEffAge WghtUsLf	WghtPhyDet (Weighted by This Improvement)					
BLDG 72.100	D		0	50.00	LF		\$31.00	1.00	1.00	1.0000	\$2,454	38,000 yr	\$2,300	\$200	0.240 yr	0.63 %					
Description: NATURAL GAS PIPING: 4" CAST IRON																					
											\$0.00 perSF	40,000 yr			0.252 yr	0.59 %					
											\$0.00 perSF	95,000 %									
Comments:																					
Source: RS Means Building Construction Cost Data Manual																					
BLDG 72.997	D		0	50.00	LF		\$2.85	1.00	1.00	1.0000	\$226	38,000 yr	\$200	\$0	0.022 yr	0.06 %					
Description: NATURAL GAS PIPE BEDDING: GRAVEL																					
											\$0.00 perSF	40,000 yr			0.023 yr	0.05 %					
											\$0.00 perSF	95,000 %									
Comments:																					
Source: RS Means Square Foot Costs Manual																					
BLDG 72.998	D		0	50.00	LF		\$3.84	1.00	1.00	1.0000	\$304	38,000 yr	\$300	\$0	0.030 yr	0.08 %					
Description: NATURAL GAS EXCAVATION / BACKFILL																					
											\$0.00 perSF	40,000 yr			0.031 yr	0.08 %					
											\$0.00 perSF	95,000 %									
Comments:																					
Source: RS Means Square Foot Costs Manual																					
BLDG 72.999	S										\$2,984		\$2,800	\$200	0.292 yr	0.77 %					
Description: SUBTOTAL - NATURAL GAS SERVICE																					
											\$3,000				0.306 yr	0.72 %					
											\$0.00 perSF										
Comments:																					

Job# 04-202

Property# I

Client JOHN J. COYLE, IV - DEMONSTRATION

Property Address 5 HORNE DRIVE

Reconstruction Cost Worksheet

For This Improvement:

Gross Sq Ft

Used in Cales

Rentable Sq Ft

Production Bbl

Storage Bbl

4/29/2009

Sheet 14

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Imp#: STRUC Above and Below Ground Improvements

Sect	Seq	Type	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Hght Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge Uselife	PhyDet	PhyDep Cost	Wght%RCN WghtUsl.f WghtPhyDet (Weighted by This Improvement)
BLDG 73.050	D		0	0.00			\$0.00	1.00	1.00	1.0000	\$0	0.000 yr	\$0	\$0	0.000 yr 0.00 %
Description: ENCLOSED STREAMS AND WATERCOURSES: NONE															

Comments:

Source: Year: Section: Page: Line:

BLDG 74.000 H | Description: COMMUNICATIONS SYSTEMS: | | | | | | | | | | | | | |

Comments:

Source: Year: Section: Page: Line:

BLDG 74.100	D		0	200.00	LF		\$11.06	1.00	1.00	1.0000	\$3,502	38,000 yr	\$3,300	\$200	0.342 yr 0.90 %	
Description: COMMUNICATION SYSTEM: 4" PVC CONDUITS																
											\$3,500	40,000 yr				0.360 yr 0.85 %
											\$0.00	perSF	95,000 %			

Comments:

Source: RS Means Building Construction Cost Data Manual

Year: 2008

Section: 26

Page: 501

Line: 260539.30-3350

BLDG 74.998	D		0	200.00	LF		\$3.84	1.00	1.00	1.0000	\$1,216	38,000 yr	\$1,200	\$0	0.119 yr 0.31 %	
Description: COMMUNICATIONS SYSTEM EXCAVATION / BACKFILL																
											\$1,200	40,000 yr				0.125 yr 0.31 %
											\$0.00	perSF	95,000 %			

Comments:

Source: RS Means Square Foot Costs Manual

Year: 2008

Section: 10

Page: 444

Line: G1030-807-1330

Addendum Page 211

Reconstruction Cost Worksheet																	4/29/2009	
For This Improvement:																	Sheet 15	
Gross Sq Ft																	Used in Cates	
Rentable Sq Ft																		
Production Bbl																		
Storage Bbl																		
																	</	

Reconstruction Cost Worksheet															4/29/2009		
Job# 04-202															Sheet 16		
Property# 1															Page 52		
Client JOHN J. COYLE, IV - DEMONSTRATION															Used in Calcs		
Property Address 5 HORNE DRIVE																	
Imp#: STRUC Above and Below Ground Improvements															For This Improvement:		
															Gross Sq Ft		
															Rentable Sq Ft		
															Production Bbl		
															Storage Bbl		
Sect	Seq	Typ	Multiplier	Height	Qty	Quality Rating	Unit Price	Stry Hght Adj	#Stry Adj	Curr Mult	TotCost RndCost	EffAge UseLife	PhyDet	PhyDep Cost	WghtEffAge WghtUsLf	Wght%RCN WghtPhyDet	
															PhyDetRate	(Weighted by This Improvement)	
BLDG 75.998 D 0 75.00 LF																	
Description: SANITARY SEWER SYSTEM EXCAVATION / BACKFILL																	
Comments:																	
Source: RS Means Square Foot Costs Manual Year: 2008 Section: 10 Page: 444 Line: G1030-807-1330																	
BLDG 75.999 S																	
Description: SUBTOTAL - SANITARY SEWER SYSTEMS																	
Comments:																	
BLDG 76.050 D 0 0.00																	
Description: TUNNELS: NONE																	
Comments:																	
Source: Year: Section: Page: Line:																	
BLDG 79.990 T																	
Description: TOTAL - LAND IMPROVEMENTS - STRUCTURES ABOVE AND BELOW GRADE																	
Comments:																	